

SEP 7 1947

J. W. BRENNAN  
PITTSBURGH CORNING CORP.  
30 Rockefeller Plaza  
New York City Circle 7-3850



# GLASS BLOCKS

A practical, money-saving material for industrial construction



## PC GLASS BLOCKS

1. Flood working areas with natural daylight
2. Aid temperature and humidity regulation.
3. Cut maintenance costs.
4. Reduce condensation on light-transmitting areas.
5. Clean easily and thoroughly.
6. Create a neat, modern appearance.
7. Permit greater privacy.
8. Provide effective sound insulation.
9. Increase usable floor area.
10. Possess insulating qualities which reduce heating costs.
11. Prevent infiltration of harmful dust and grit.

## INDEX

	Page
Transmission of Natural Daylight.....	3
Temperature and Humidity Control....	4
Cleanliness and Privacy in Office Areas....	5
Improved Building Appearance.....	6
Cut Maintenance Costs.....	7
Varied Industrial Uses.....	8 & 9
Use in Food Plants....	10
Use in Precision Plants.....	11
Insulating Qualities of Glass Blocks.....	12
Technical Data.....	13
Types, Sizes, Patterns, Shapes and Accessories.....	14-17
Installation Data.....	18-25
Specifications.....	26 & 27

**HERE'S THE FULL STORY** of glass block construction as it applies to many lines of manufacturing. As you read it, you'll readily see why the use of glass blocks can mean more efficient production in your plant. It's really the story of how PC Glass Blocks have helped other manufacturers in many different industries solve many of their pressing problems.

One manufacturer installed PC Glass Blocks for one reason only: to get more daylight into his plant. After the Glass Blocks were in place, he found not only that he then had an abundance of natural light in the working areas of his plant but also that temperature control was improved, the load on his air-conditioning equipment was reduced and he had closed up countless crevices through which gritty dust had formerly sifted.

Each year more and more plant managers discover that glass block construction offers a practical, economical answer to troublesome questions of production and maintenance. That's why so many of them replace worn, rotted sash with corrosion-resistant Glass Blocks. Many an installation has paid for itself out of savings on cleaning and maintenance costs.

As you look through this book, you will recognize one or more ways in which PC Glass Blocks can help you do a better job and cut production costs at the same time. Listed above are the eleven principal advantages of glass block construction. They are described and illustrated in the following pages.

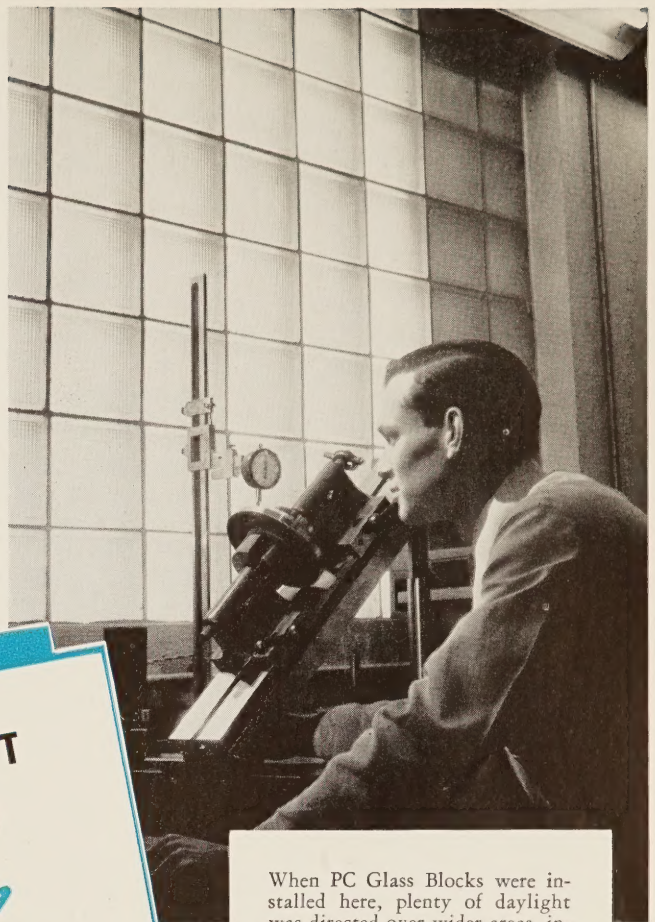


BECAUSE PC Glass Blocks provide good insulation it is possible to use them for large light-transmitting areas without disturbing room temperature or humidity. Though they retard heat transfer, PC Glass Block panels flood working areas with generous quantities of natural daylight, softly diffused by the pattern in the faces of the blocks.

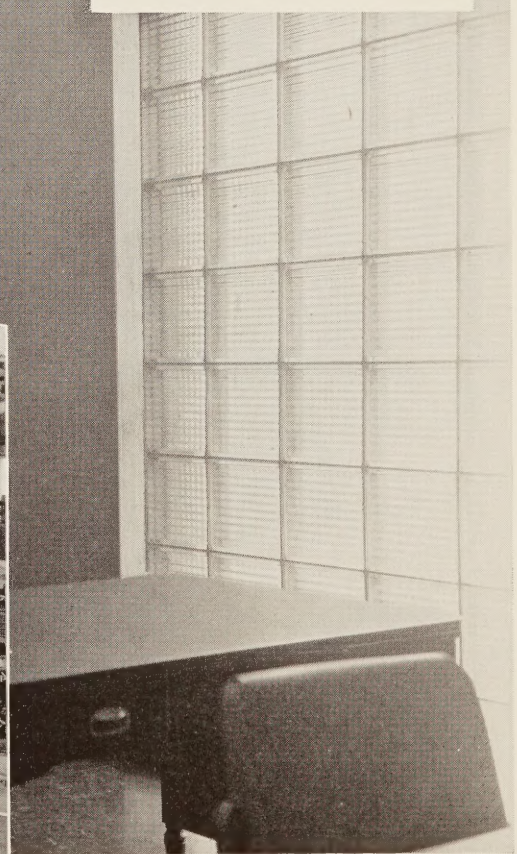
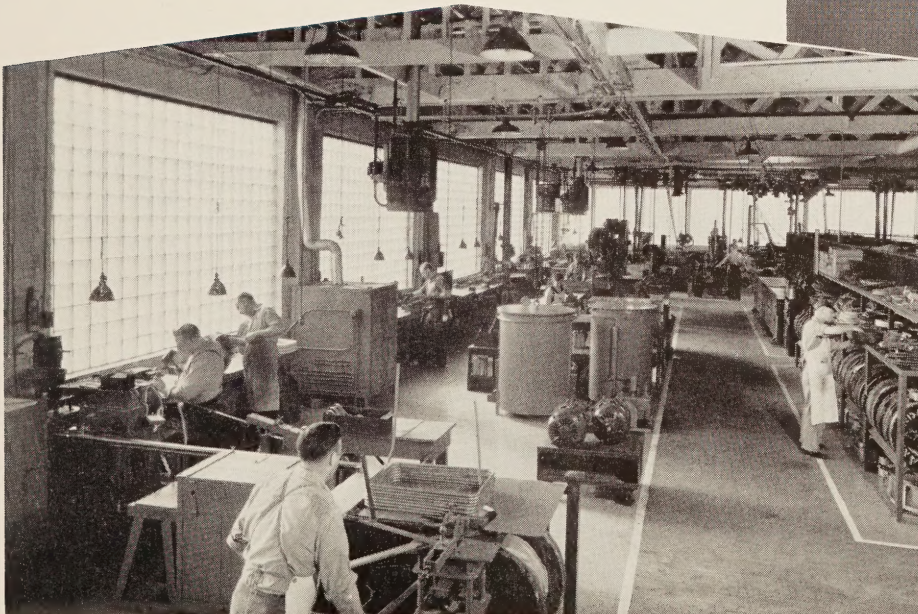
Better lighting means better vision for workmen — with resulting improvement in quality of workmanship. This extra daylight is an economy, for it helps reduce the need for artificial lighting. And remember, PC Glass Blocks give you this valuable daylight with far less solar heat transmission than you would experience with equal areas of ordinary windows.

PLENTY OF NATURAL DAYLIGHT  
TRANSMITTED THROUGH AN  
*Insulated Wall*

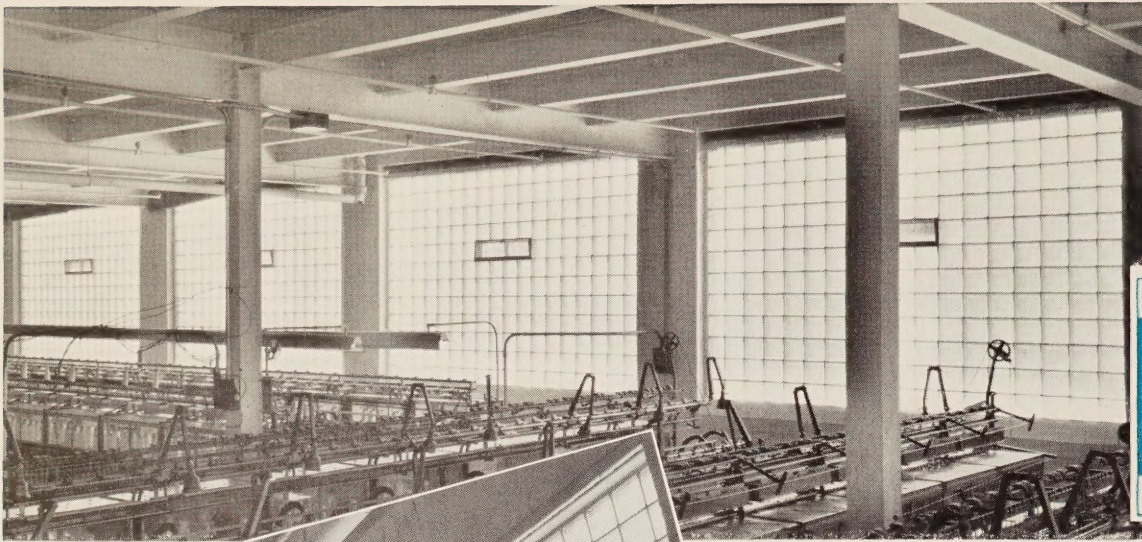
Employees work better in a well-lighted, cheerful atmosphere. Exact, detailed work is done more carefully when distracting sights and sounds are excluded by Glass Blocks.



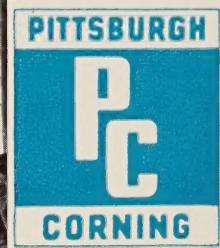
When PC Glass Blocks were installed here, plenty of daylight was directed over wider areas, infiltration of dust and dirt was completely eliminated, temperature and humidity were more easily controlled.



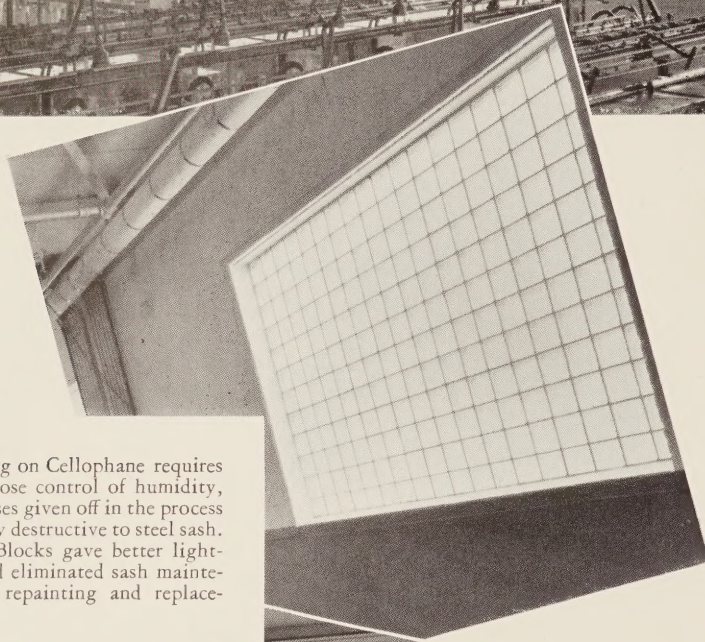




"Today, with the thermometer down to zero, we really got the full benefit of Glass Blocks as we have some fine gauge machinery within three feet of these blocks. Should we have kept our ordinary windows, I am sure we would have been unable to operate this equipment on a day of this kind."

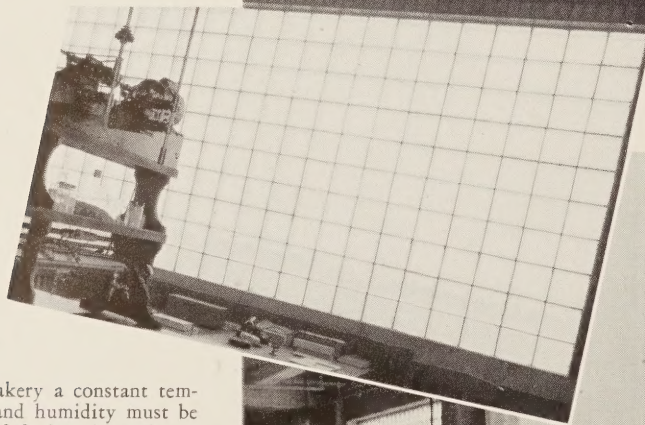
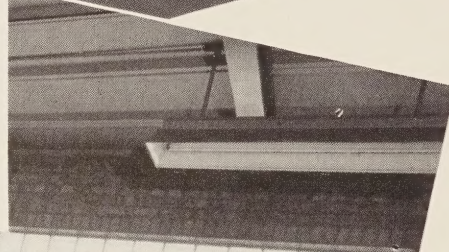


T. M. REG. U. S. PAT. OFF.

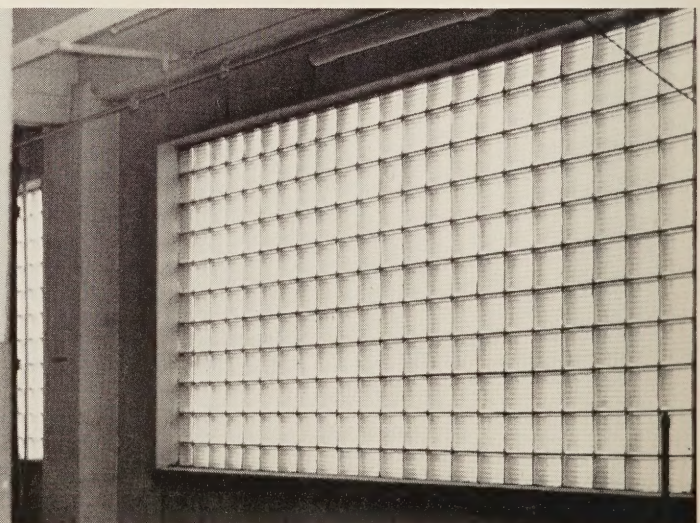
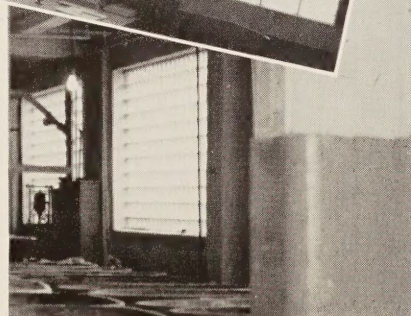


Printing on Cellophane requires very close control of humidity, and gases given off in the process are very destructive to steel sash. Glass Blocks gave better lighting and eliminated sash maintenance, repainting and replacement.

Without obstructing the view, PC Vue Blocks exclude dust and noise from this laboratory in which control of temperature and humidity are particularly important.



In this bakery a constant temperature and humidity must be maintained during the 24 hours required for dough to set. PC Glass Blocks help maintain desired levels.



## WHERE PC GLASS BLOCKS ARE USED—

### TEMPERATURE AND HUMIDITY CAN BE CLOSELY REGULATED

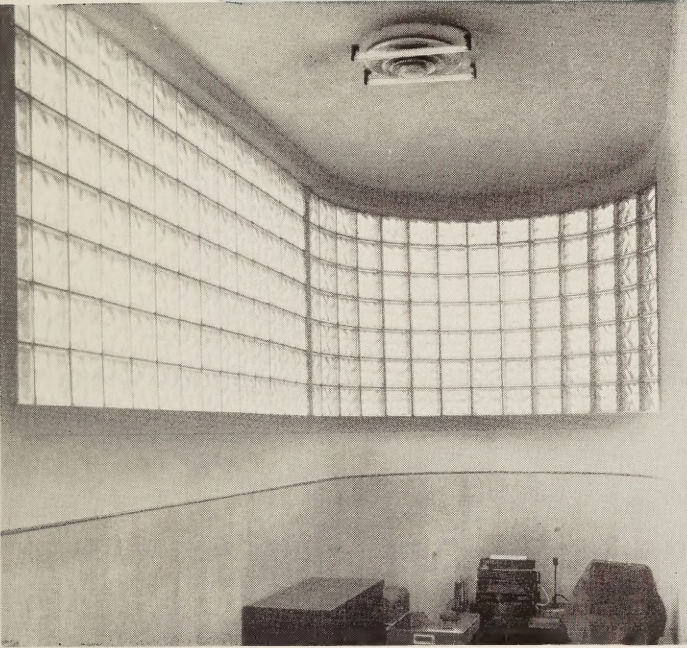
In plants where machinery or materials are affected by heat or moisture, PC Glass Blocks have proved especially valuable. Because heat loss is cut down and temperatures are held more constant, condensation is lessened and humidity control is simplified. Where these factors are regulated by air-conditioning equipment, the load on such equipment is greatly reduced, the system does a better job and often effects appreciable savings in operating costs.



# PC Glass Blocks...

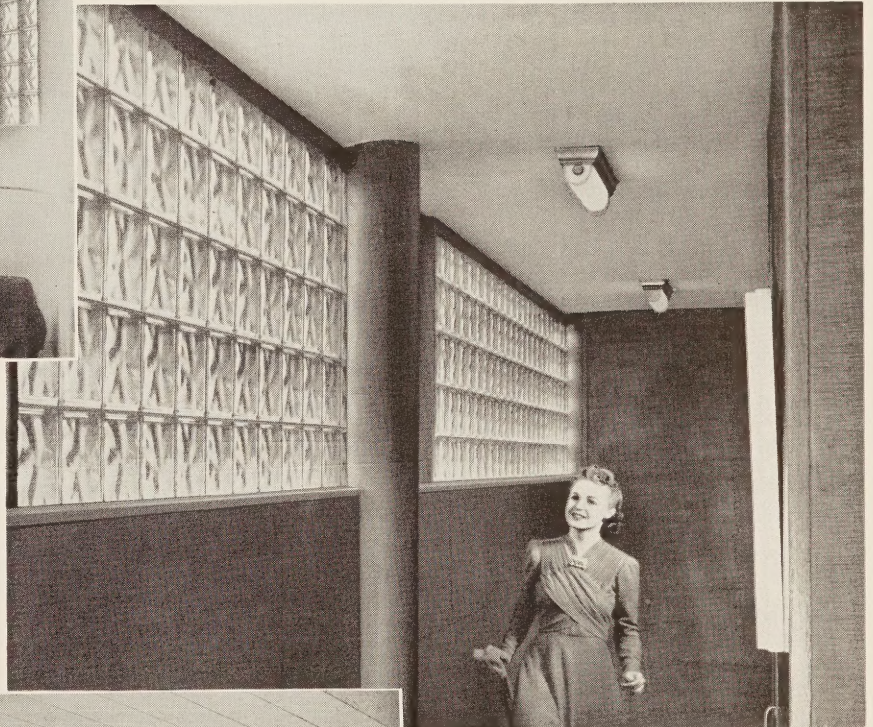
- **EXCLUDE DUST**
- **REDUCE NOISE**
- **ASSURE PRIVACY**

Where offices, laboratories, dispensaries and drafting rooms are in factory buildings, PC Glass Blocks are ideal for confining plant dust and noise without excluding light. Translucent but not transparent, they safeguard the privacy of executive and research departments. Where limited visibility is desired, PC Vue Blocks may be inserted in the panel. Smart in appearance and easily cleaned, PC Glass Blocks make plant offices as attractive and secluded as those in any modern office building.

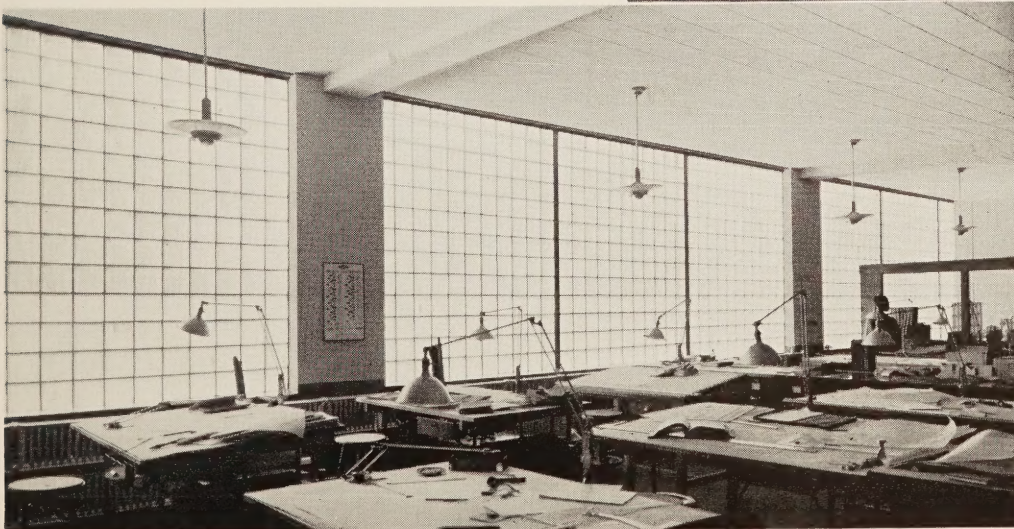


This plant office receives plenty of natural light through PC Glass Blocks. Distracting noises are deadened, dust is completely excluded.

Workers in this drafting room enjoy privacy, temperature comfort and an abundance of daylight since PC Glass Blocks were installed.

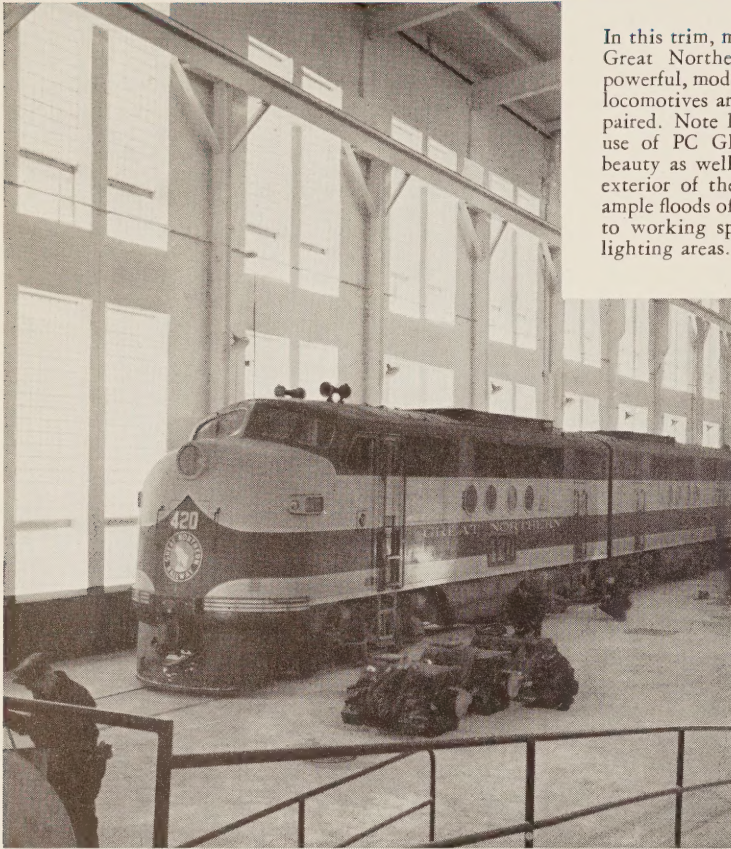


Traffic in this corridor does not disturb the workers on the other side of these Glass Block partitions.

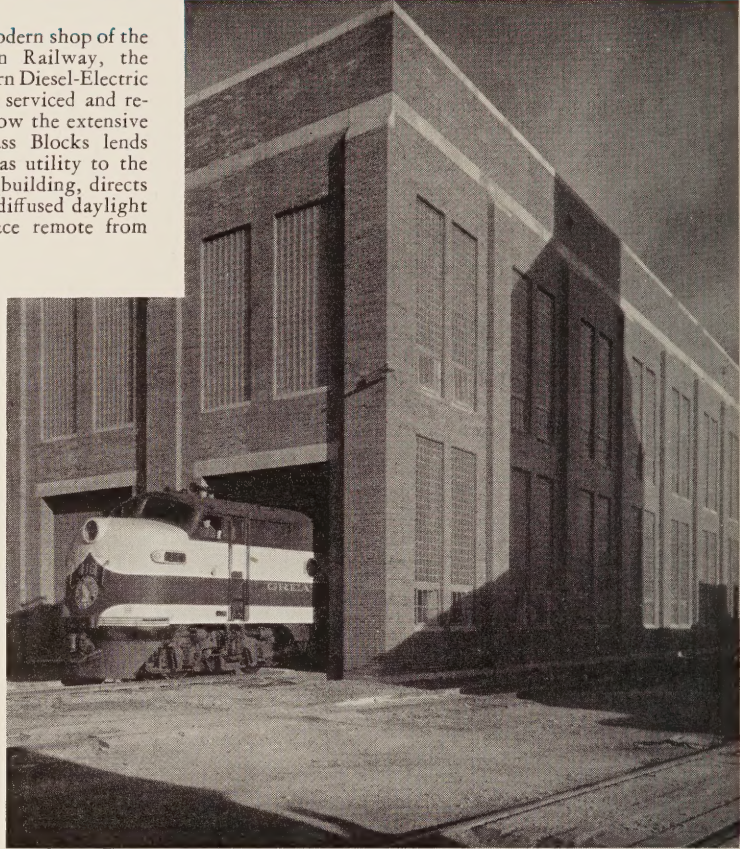




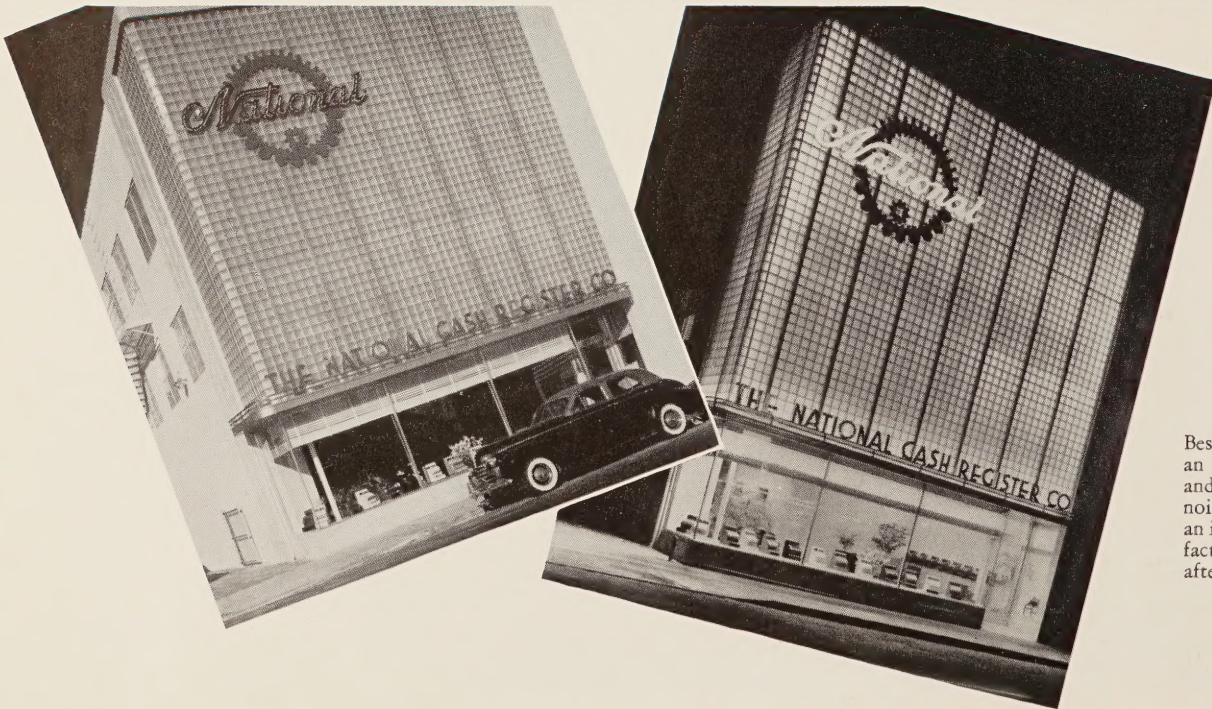
## PC Glass Blocks give a clean, neat appearance



In this trim, modern shop of the Great Northern Railway, the powerful, modern Diesel-Electric locomotives are serviced and repaired. Note how the extensive use of PC Glass Blocks lends beauty as well as utility to the exterior of the building, directs ample floods of diffused daylight to working space remote from lighting areas.



## PC Glass Blocks make an effective advertisement

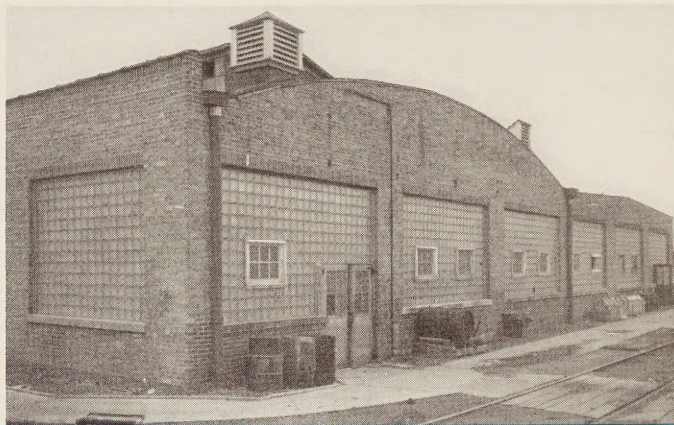
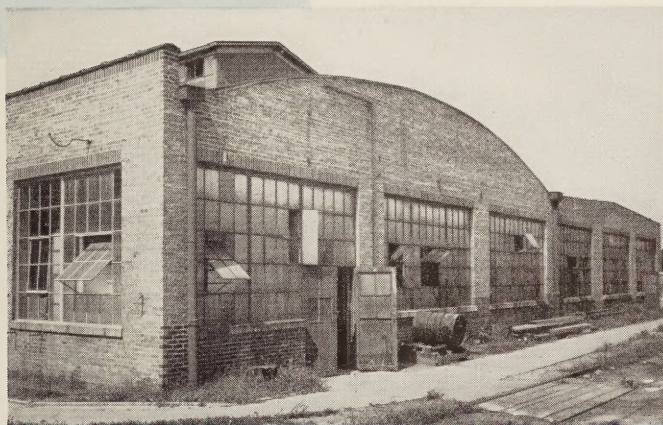
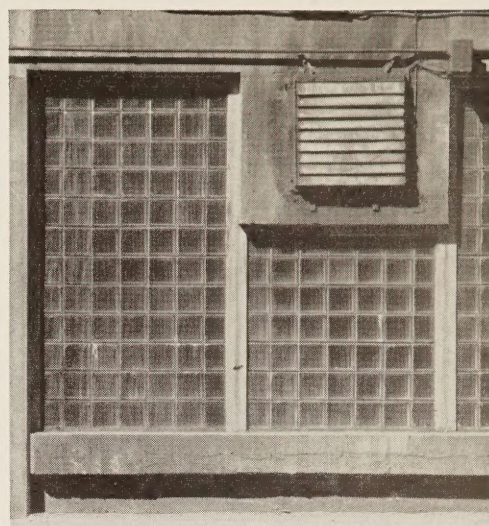
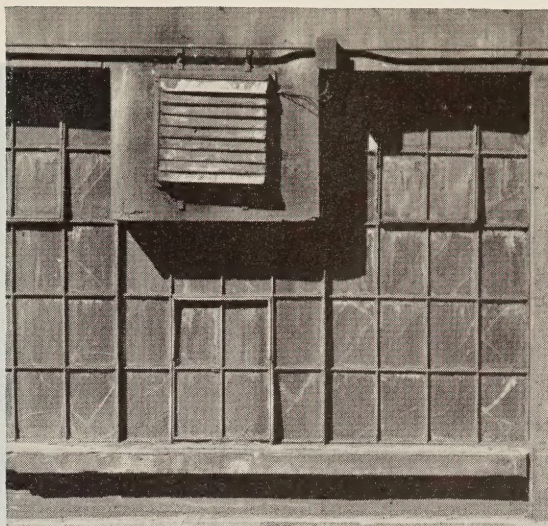


Besides flooding the interior with an abundance of natural daylight and excluding distracting traffic noises, these PC Glass Blocks make an impressive display of the manufacturer's trade-mark before and after sundown.



# PC Glass Blocks eliminate sash maintenance

Sash replacement is a constant expense in plants where high acid atmospheres and excessive humidity are encountered. Under these conditions, PC Glass Block panels will not pit, check, rot or crack. There is no sash to rot or corrode—that's why the costly repair-and-replacement problem is eliminated. Should replacement of an individual block be required, it can be done easily by a regular mason.



## *Cleaning*

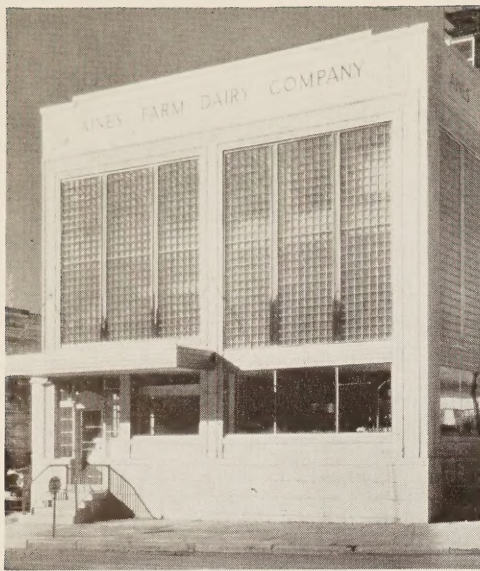
**IS EASY,**

**QUICK AND THOROUGH**

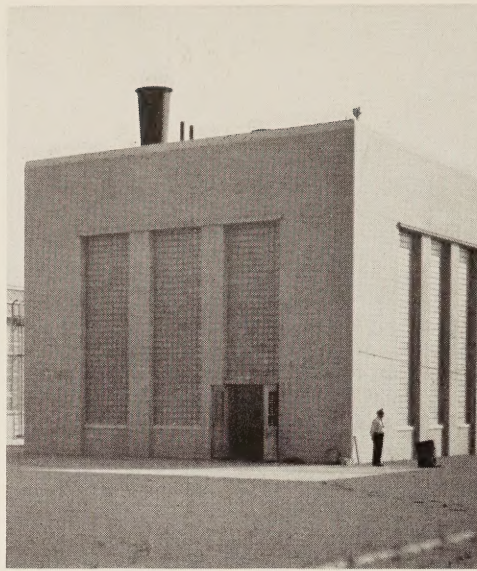
Some plants using glass blocks wash them down occasionally with a hose and a long-handled brush. Others just wipe the panel with a damp cloth. Either way is quick, inexpensive and thorough.

A glass block panel is all one big area—with no individual panes to wash and no muntins to wipe dry. Outside surfaces are so designed that dirt washes from them easily. The translucent effect of glass blocks keeps them looking clean long after ordinary clear glass looks spotty or streaked from dirt particles. Glass blocks need cleaning less often—and the job is easier when required.





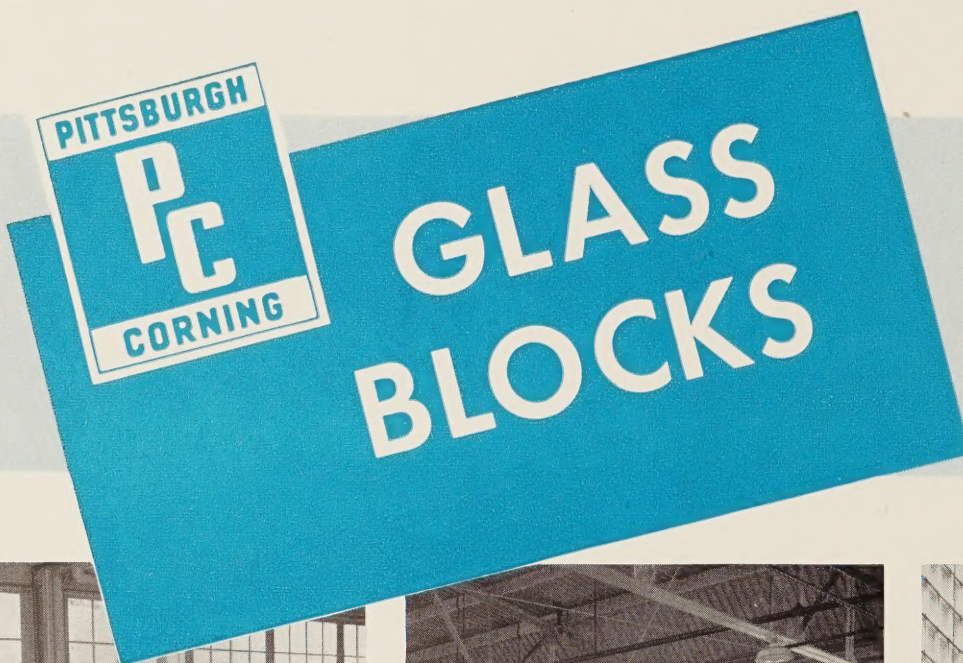
**DAIRY** — The neat, clean exterior of this dairy will appeal to customers. Inside, PC Glass Blocks provide plenty of light without glare, exclude dust and dirt from milk processing areas, and permit close control of temperature.



**POWER PLANT** — PC Glass Blocks diffuse an abundance of daylight throughout this power plant with a minimum heat loss and maximum privacy.



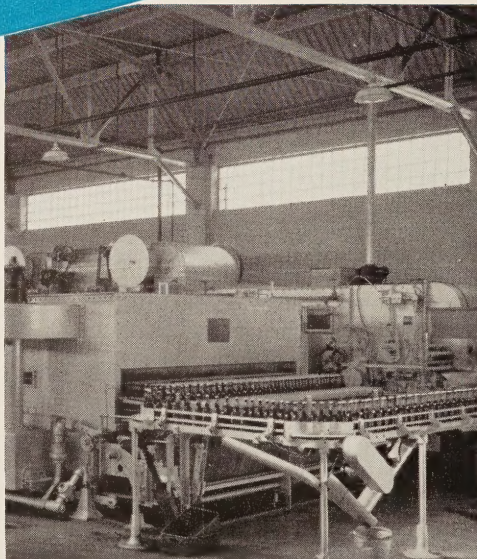
**MANUFACTURING PLANT** — In this plant Glass Blocks reduce the load on the air-conditioning system. At the same time they add an effective touch to the building's modern design.



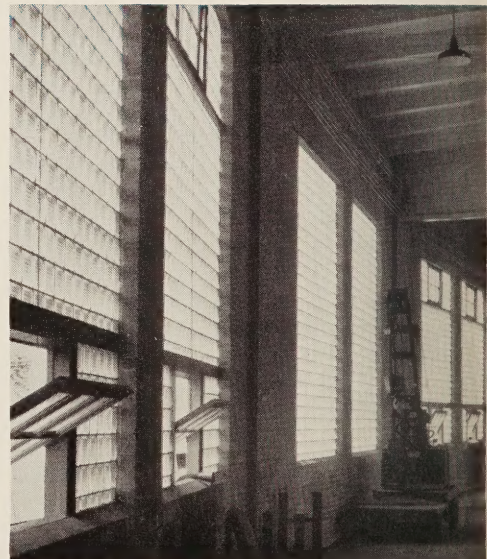
*...are  
in*



**LAUNDRY** — Privacy is assured, distracting outside views are excluded by using PC Glass Blocks in eye-level lighting panels.



**BOTTLING PLANT** — The high humidity prevalent in bottling plants makes sash maintenance a recurrent expense. PC Glass Blocks eliminate this trouble, reduce maintenance costs, give better control of temperature and humidity.



**RAILROAD ROUNDHOUSE** — Glass Blocks assure a maximum of diffused daylight throughout working areas with a minimum expense for the maintenance of window space.





**DRUG FACTORY** — The light-directing properties of PC Glass Blocks insure ample natural light. Their insulating value lessens heat losses through large panels.



**ADMINISTRATIVE OFFICES** — Exclusion of dirt and noise from nearby factory buildings was an important reason for choosing PC Glass Blocks for this office building. Workers enjoy diffused daylight, even temperature and complete privacy.



**FOOD PLANT** — The need for clean air in food processing areas and for the close regulation of temperature and humidity made the choice of PC Glass Blocks a "natural" in this food plant. Glass Blocks make this building attractive to workers and customers alike.

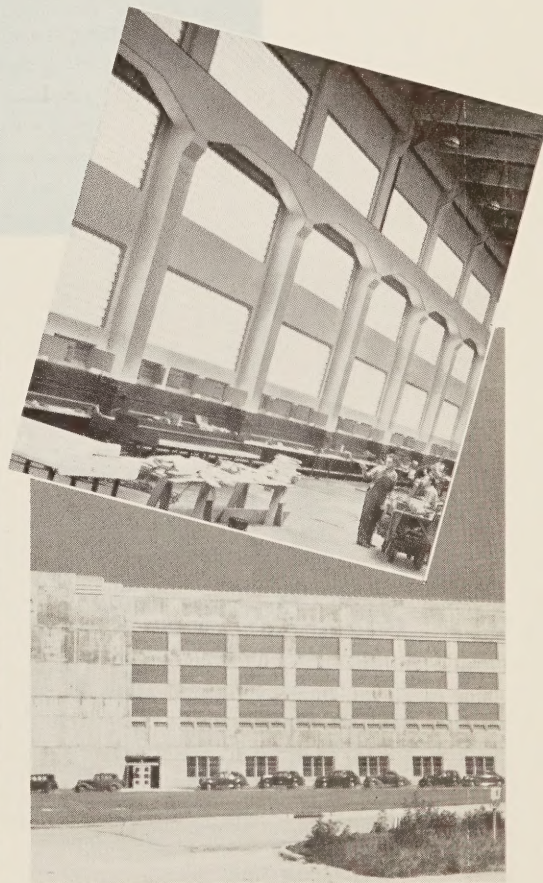
*helping solve problems  
many industrial plants*



**EMPLOYEES' SHOWERS** — These glass block partitions are easily cleaned, impervious to the corrosive action of moisture and transmit the largest possible amount of daylight to the interior of the building.

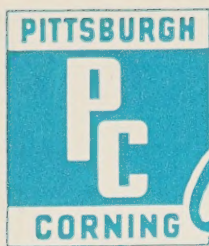


**BLEACHING AND DYEING PLANT** — "We are well satisfied," says the Morgan Dyeing and Bleaching Co., "with the glass blocks in our plant. Lighting and working conditions have improved considerably . . . plus the fact that our maintenance problem is over. The excessive amount of condensation and steam in our plant is quite an extreme test, and we are very well satisfied with the results."



**ARSENAL** — Architects and engineers faced a problem of supplying adequate natural light to acres of working space. PC Glass Blocks offered a solution which harmonizes perfectly with the architectural design of the structure.



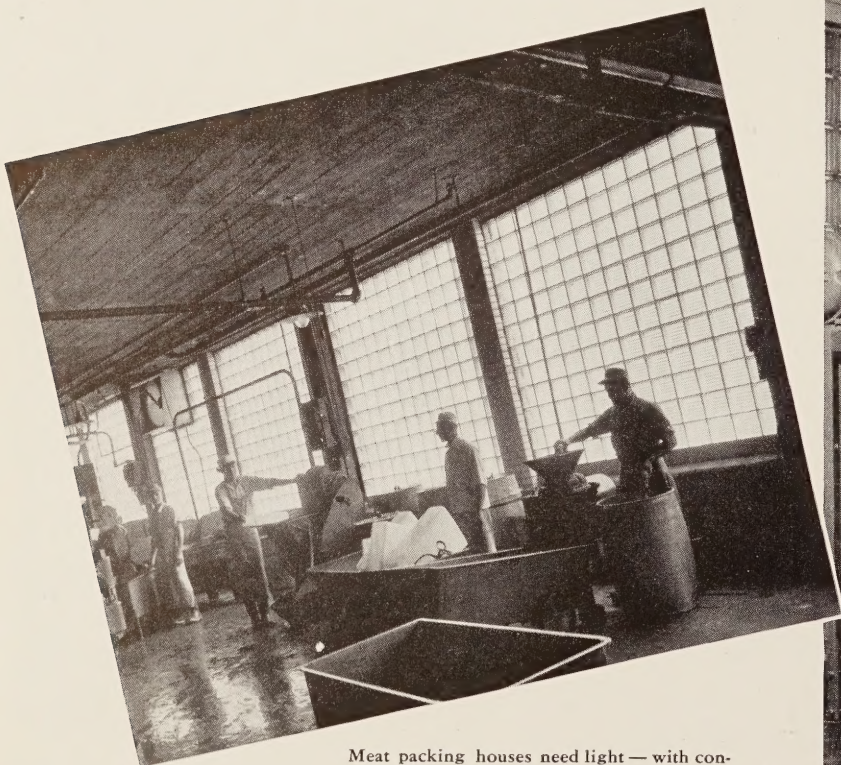


# Glass Blocks

## KEEP FOOD PLANTS SPIC AND SPAN

Food plant managers can't afford to take any chances on cleanliness. The pureness of the product, government inspection and public goodwill all demand that every part of the plant be spotlessly clean. Not only are PC Glass Block panels easy to clean, but their appearance gives the plant a bright, clean look that's bound to impress customers and workmen, too. Also important to cleanliness of both the plant and the product is the fact that glass block panels do not permit infiltration of dust, or other contaminating elements.

The high humidity and high temperature in some rooms present a difficult problem in condensation on ordinary window areas. Glass Blocks are being widely used in food plants because they reduce condensation to a marked degree — and because they eliminate costly maintenance resulting from corrosion of ordinary sash under these conditions. Where rooms must be kept cold, the insulation provided by glass block panels helps keep room temperatures more constant and lightens the load on cooling equipment.

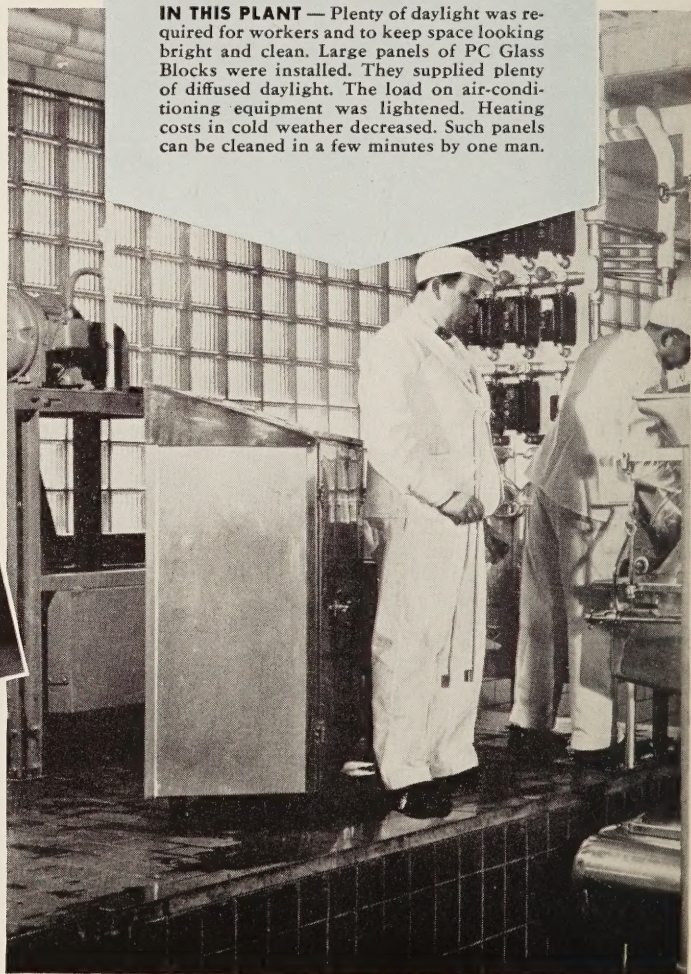


Meat packing houses need light — with constant low temperatures in many parts of the plant. Here the insulation values of glass blocks are vitally important for control of temperatures. Cleanliness plays a big part in the wide acceptance of glass blocks in this industry. In many plants where acid conditions would make frequent replacement of window sash necessary, glass blocks eliminate a costly item.

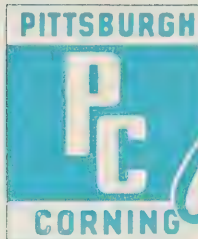


**DAIRIES** — High humidity in steamy rooms often causes condensation of solutions which would corrode ordinary sash and present a costly maintenance problem. When PC Glass Block panels are used for light areas, condensation is reduced considerably. Because there is no sash to rot or corrode, the maintenance problem is lightened. Cleaning is easy and thorough.

**IN THIS PLANT** — Plenty of daylight was required for workers and to keep space looking bright and clean. Large panels of PC Glass Blocks were installed. They supplied plenty of diffused daylight. The load on air-conditioning equipment was lightened. Heating costs in cold weather decreased. Such panels can be cleaned in a few minutes by one man.

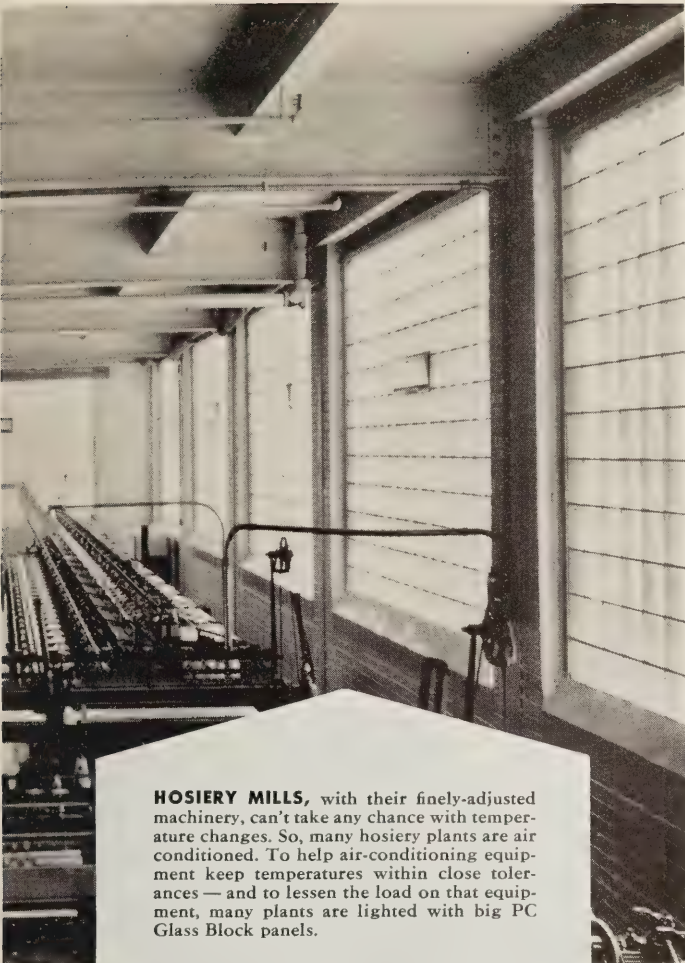




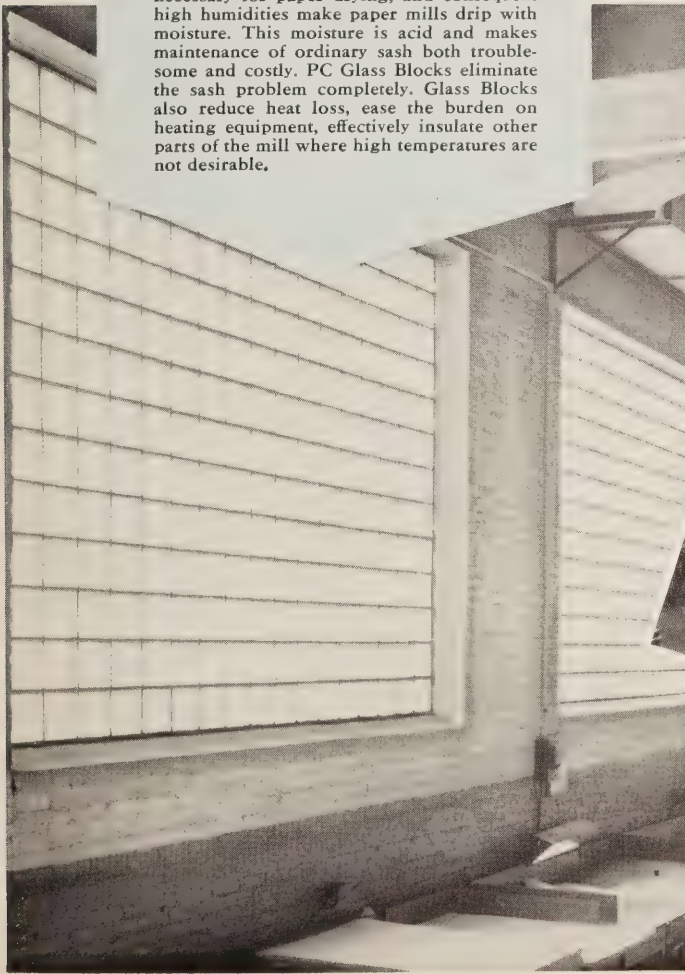


## AID PRECISION BY REGULATING TEMPERATURE AND HUMIDITY

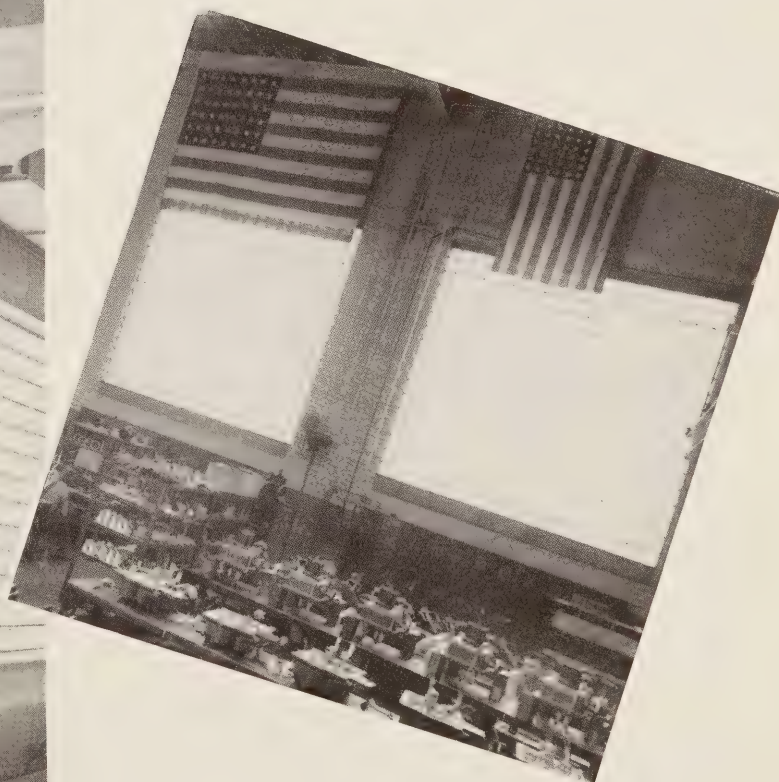
In many plants rigid control of goods in process and delicate adjustment of precision machinery is essential to maintain product perfection and uniformity. In textile and hosiery mills delicate machinery can easily be thrown out of adjustment by a change in temperature. In machine shops where precision work is done, both tools and materials may be affected by extremes in heat and cold. The insulating properties of PC Glass Blocks are an effective protection against variations in temperature and humidity which retard production. Prevention of excessive heat loss through lighting areas lightens the load on air-conditioning equipment, often effects a reduction in operating costs. Areas near ordinary windows often are not usable for precision work because of frequent outdoor temperature changes. Glass Blocks insulate such areas against sharp variations of temperature, thus increasing usable space.



**HOSIERY MILLS**, with their finely-adjusted machinery, can't take any chance with temperature changes. So, many hosiery plants are air conditioned. To help air-conditioning equipment keep temperatures within close tolerances — and to lessen the load on that equipment, many plants are lighted with big PC Glass Block panels.



**EXTREMELY HIGH TEMPERATURES** are necessary for paper drying, and consequent high humidities make paper mills drip with moisture. This moisture is acid and makes maintenance of ordinary sash both troublesome and costly. PC Glass Blocks eliminate the sash problem completely. Glass Blocks also reduce heat loss, ease the burden on heating equipment, effectively insulate other parts of the mill where high temperatures are not desirable.



Where precision tool work is done, temperature must be kept constant. In this plant Glass Blocks cut heat loss without interfering with the transmission of daylight to working areas.



## HOW THIS

# Dead Air Space

## HELPS INDUSTRY

EACH PC Glass Block contains a sealed-in dead-air space that is an effective heat retardant. As a result, a panel of PC Glass Blocks contains a multitude of small insulating units — each block and the whole panel having a very low coefficient of heat transfer. The insulation of daylighting areas is important to industry. It eliminates much of the wastefulness of ordinary windows, and has a marked effect on manufacturing efficiencies in many plants.

### BETTER TEMPERATURE CONTROL

Whether you want to keep your rooms hot or cold, PC Glass Blocks can help you. They have less than half the heat loss of ordinary windows, with insulation comparable to the best double-glazing. This results in more constant room temperatures, more freedom from the influence of outdoor temperatures, summer and winter.

### LESS CONDENSATION

So effective is the insulation of a PC Glass Block panel, that with an indoor temperature of 70 and a relative humidity of 40%, moisture will not form on the inside of the panel until the outdoor temperature is down around 14 degrees below zero as compared with 33 degrees above zero for ordinary windows. This example shows how effectively glass blocks retard condensation. Even where conditions are severe, troublesome dripping moisture is considerably reduced.

### BETTER HUMIDITY CONTROL

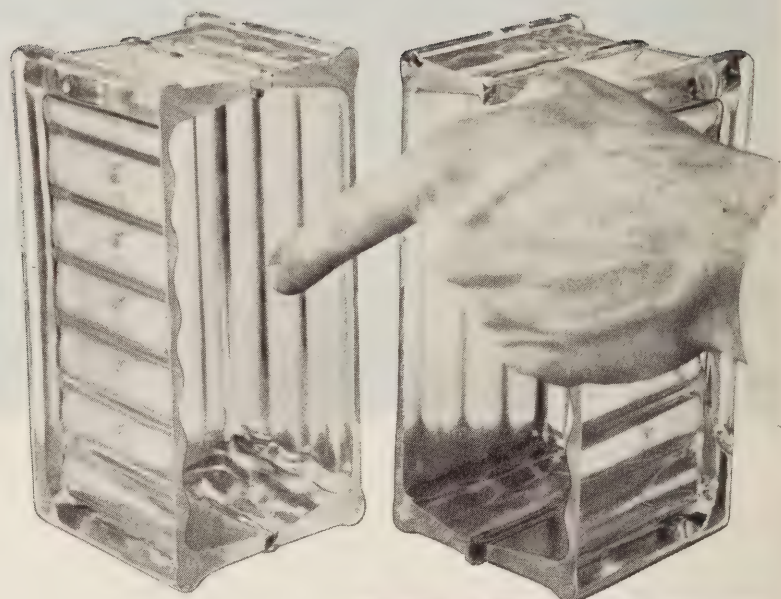
With temperatures held more constant and with less moisture taken from the air by condensation on glass areas, the problem of humidity control is simplified. Where processes are adversely affected by humidity fluctuations, this factor is very important.

### INCREASED USABLE FLOOR AREA

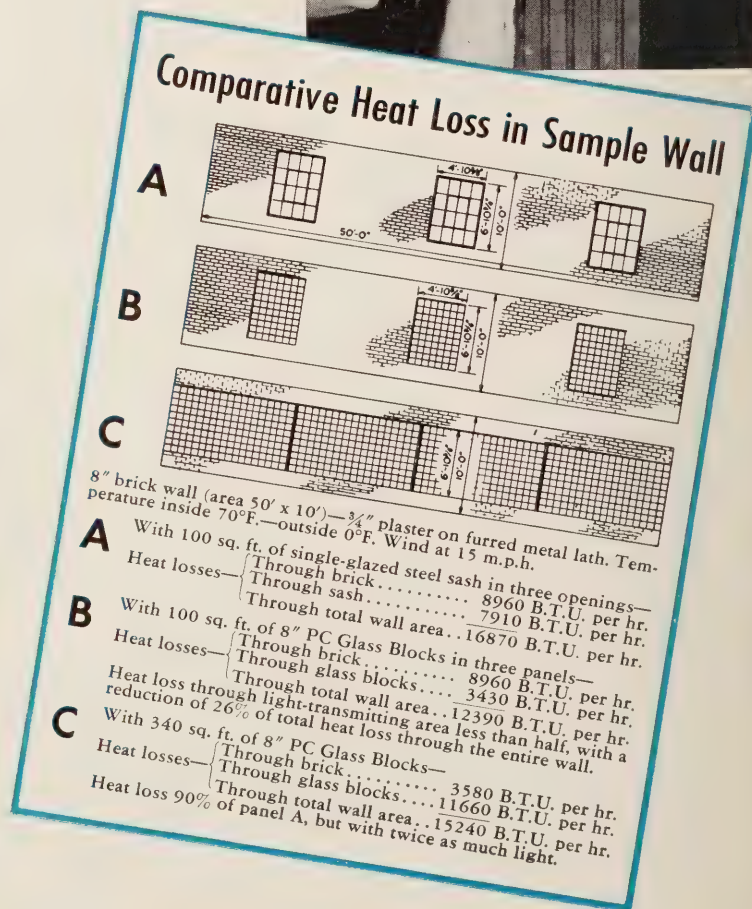
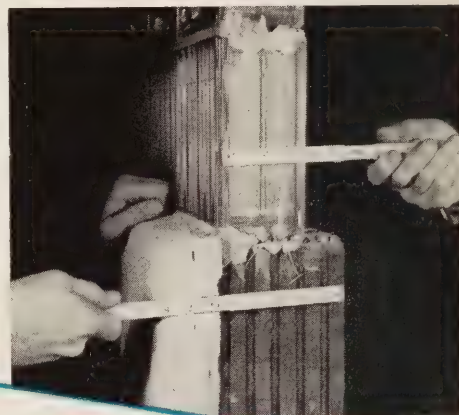
Areas near ordinary windows often are not usable when precision work is being done, because frequent changes in outdoor temperatures so greatly affect room temperatures. PC Glass Blocks not only insulate light-transmission areas against outdoor temperature changes, but also eliminate drafts of cold air. Thus they frequently make the outer floor areas more comfortable for employees and more usable for operation of precision equipment.

### AIDS AIR CONDITIONING

The three chief aims of air conditioning — temperature control, humidity control and cleansing of air are all aided by the use of PC Glass Blocks. The insulation afforded by glass block panels saves money for operators of air-conditioning systems. Heat loss is less in winter — heat gain is less in summer. Humidity conditions are much less likely to be upset by condensation. Solar heat transmission and radiation are reduced. Dirt can't filter in for each panel is a tightly sealed unit. The result is that less load is thrown on the equipment. It can do a better conditioning job and in some cases savings in size of air-conditioning equipment may be possible.



PC Glass Blocks have the same insulating value as an 8-inch brick wall, practically the same as an 8-inch hollow tile wall — more than twice that of ordinary windows.





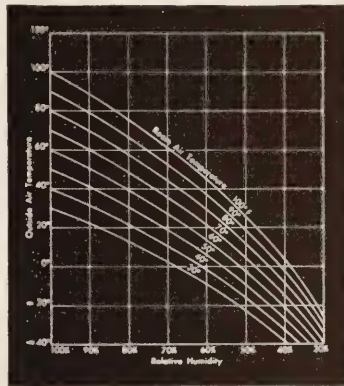
## THERMAL INSULATION

Tests run during the past several years by a number of nationally recognized laboratories have established values for the over-all coefficient of heat transfer "U" as 0.40 to 0.43 for panels of 8-inch block constructed in the recommended manner. In computing heat losses through panels for design purposes, it is recommended that a "U" value of 0.49 be used for all block sizes and face patterns.

## SURFACE CONDENSATION

Due to the high insulating value of PC Glass Blocks, condensation will not start forming on the room side of glass block panels until the outside air has reached a temperature much lower than that necessary to produce condensation on single-glazed windows. The accompanying chart shows at what temperatures condensation will form.

### OUTDOOR TEMPERATURE REQUIRED TO PRODUCE CONDENSATION ON THE ROOM SIDE SURFACE OF PC GLASS BLOCK PANELS



(For example, the chart shows that with inside air at 70° F. and relative humidity at 40%, condensation will not begin to form on the interior surfaces of a glass block panel until an outdoor temperature of -14° is reached. Under similar conditions with single-glazed steel sash, moisture will begin to form when the outdoor temperature reaches +33° F.)

## LIGHT TRANSMISSION

Light transmission through the faces of individual glass blocks has been measured by two somewhat different methods in the absence of any generally accepted standard. Average values for each PC pattern are:

Pattern	% Transmission of Incident Light
Argus.....	80
Argus Parallel Flutes.....	80
Bristol.....	70
Decora.....	80
Reeded-Decora.....	80
Druid.....	80
Essex.....	50
Prism Light-Directing.....	65
Saxon.....	80
Vue.....	85

Additional data on the performance of the Essex and Prism Light-Directing units are given on Page 14.

## SOUND INSULATION

Glass block panels have sound insulation properties equal to or better than other forms of masonry construction having equal weight per unit surface area, and are decidedly superior to single-glazed sash.

Tests give sound reduction factors for standard glass block panels of 37.6 to 42.0 decibels, a value closely approximating that for a 4-inch hollow clay tile wall plastered both sides.

## CRUSHING STRENGTH

Repeated tests made on square wallettes laid up with PC Glass Blocks show a minimum panel compressive strength of 400 to 600 pounds per square inch of gross loaded area.

This crushing strength is well above that of many accepted masonry constructions, and is entirely adequate to resist safely the forces created by conditions within the glass block panels themselves.

However, glass block construction should never be used for loadbearing walls or panels. Adequate provision must be made for the support of construction above glass block panels, and expansion joints must be provided at head and jambs of all panels in exterior walls.

## BOND STRENGTH

PC Glass Blocks have a special grit-bearing, moisture-and-alkaline-resisting, plastic coating on all mortar edges. This insures a complete and permanent bond between the glass and the cement mortar and provides a panel construction having a high degree of wind resistance and watertightness.

## WIND RESISTANCE

From wind pressure tests on PC Glass Block Panels ranging in area from 50 sq. ft. (5'x10') to 256 sq. ft. (16'x16'), it has been found that any panel properly supported at its edges and within the area limits recommended will withstand a wind load of 20 pounds per sq. ft. with a safety factor of at least 2.7.

## SOLAR HEAT GAIN

The use of glass blocks for light-transmitting areas results in a marked reduction in the total solar heat gain as compared with ordinary windows. This factor is of considerable advantage in buildings that are properly air conditioned, but does not eliminate the need for adequate ventilation or shading in non-air-conditioned rooms.

Based upon extensive tests, suggested figures for design computations are a maximum hourly rate of 41 B.T.U. and maximum daily rate of 250 B.T.U. total heat gain per square foot of glass block panel on South exposure, 40 degrees North Latitude for August 1.

More complete data on solar radiation appear in the current Guide of the American Society of Heating and Ventilating Engineers.

## WEATHER RESISTANCE

Under all sorts of weather conditions, PC Glass Block construction has proved its durability. Tests of panels subjected to repeated cycles of heating, water spray and freezing show no sign of cracking or other structural deterioration, although temperatures well above and below those encountered in any exposure have been regularly used.

## WATER-TIGHTNESS

Experience, both in the laboratory, where some 4,000 sq. ft. of panels 8'x10' in size have been tested, and also in the field where records of a number of jobs are available, conclusively indicates that properly constructed panels of PC Glass Blocks will be free from leakage. After long, driving rain storms, the most that has been observed is a slight darkening of the mortar joints.

## ESTIMATING DATA

(For 100 sq. ft. of panel laid with 1/4-in. visible mortar joints)

Size of Block.....	6"	8"	12"
Number of Blocks..	400	225	100
Weight of Panel....	2000 lbs.	1800 lbs.	1900 lbs.
Volume of Mortar..	4.3 c.f.	3.2 c.f.	2.2 c.f.



# PC GLASS BLOCKS . . .

## FACTS ABOUT THE PRISM LIGHT-DIRECTING GLASS BLOCKS

It is often desirable to provide a means of carrying daylight as far as possible into a room and thus provide daylighting for workers who are located far from outside walls.

The PC Prism Light-Directing Glass Block was designed for this purpose. This block controls the direction of light transmitted by the block. Because the transmitted light is bent upward, a more uniform distribution of interior illumination is possible when used with a reflecting ceiling. Objectionable brightness and glare are reduced when viewed from the horizontal or below. The result is a more even distribution of daylight, with a reduction in the intensity of direct sunlight falling on working areas near outside walls. This control of transmitted light is accomplished by means of horizontal prisms on the two inside faces. Incident sunlight is so refracted that the greater part of the transmitted light is directed toward the ceiling, with a minimum directed downward. The prism construction is all on the inside, and thus the light-directing surfaces are protected from damage or dirt. Light-Directing Blocks should be laid only above eye level (5'6" to 6' above the floor), so that the light will be directed away from the eyes of room occupants. Correct control of light is possible only when blocks are set in proper position. Blocks are marked to indicate correct setting.

### Light Transmission and Distribution

The PC Prism Light-Directing unit has an unusually high light-transmission factor for this type of glass — about 80% that of the Argus and other conventional patterns. The diagrams at the right illustrate the performance of the prisms, and show a typical illumination curve. Note the high foot-candle readings well back in the room, and the low ratio between the maximum and minimum — always a desirable feature in lighting.

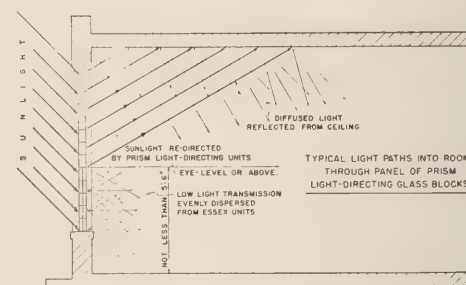
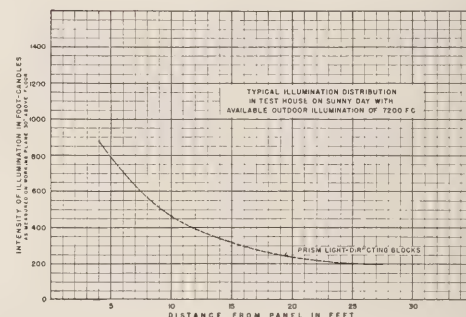
### Solar Heat Transmission

Tests show that the total heat gain is approximately 85% that of the standard Argus Glass Block and about half that of single-glazed sash. The benefit to room occupants is even more pronounced, however, since they suffer no bodily discomfort as a result of the direct rays of the sun.

### Use in Combination with the Essex Block

Where panels containing Prism Blocks would normally extend below eye-level, it is recommended that the complementary ESSEX Block be used in the lower portion of the panel. With this combination, advantage is taken of the most valuable qualities of each of these blocks to provide best lighting conditions. The

Essex Block is similar in appearance to the Prism Unit. It must be installed with exterior flutes in a horizontal position.



NOTE — ESSEX PATTERN, SIMILAR IN APPEARANCE TO PRISM LIGHT-DIRECTING UNIT, SHOULD BE USED IN PORTION OF PANELS BELOW EYE-LEVEL. THE ESSEX UNIT MUST BE SET WITH EXTERIOR FLUTES HORIZONTAL.

## FACTS ABOUT THE ESSEX GLASS BLOCK

The use of large glass areas for daylighting, while effective for cloudy days, frequently presents a problem of light distribution — especially in direct sunlight. Reduction of daylight intensity by the use of awnings or shades has frequently resulted in the impairment of the efficiency of the natural illumination. The diffusing qualities of standard glass block patterns have partially solved this problem, but their use in extensive areas presents the same problem as single glazing — though to a lesser degree.

The solution is the use of ESSEX pattern Glass Blocks. They transmit a relatively low amount of incident light, evenly dispersed, and provide best lighting conditions even when large glass areas are required for adequate illumination of large floor areas. Correct control of light is possible only when blocks are set with exterior flutes in a horizontal position.

### Light Transmission and Distribution

Light transmission of the ESSEX Glass Block is of an evenly dispersed character and is approximately 60% of the Argus and other conventional patterns.

### Solar Heat Transmission

Tests show that the total solar heat gain through glass block panels is made up of two factors — radiant heat directly transmitted into the room, and heat first absorbed by the panel itself and then partly re-radiated and partly conducted into the room. The interior vertical prisms and exterior spreading flutes of the ESSEX Block account for the very low figure for total heat gain — about 60% that of the Argus or other conventional patterns, or some 35% that of single glazed sash. This reduction of solar heat will appreciably reduce cooling loads in air-conditioned rooms, but

will not eliminate the need for adequate ventilation in non-air-conditioned rooms on sun exposures.

### Where to Use Essex Glass Blocks

Generally — wherever it is desirable to take advantage of the insulation of light-transmitting areas through the use of glass blocks, and at the same time obtain a relatively low amount of incident light, evenly dispersed to provide for best lighting conditions. The following may serve as a guide to the use of these blocks:

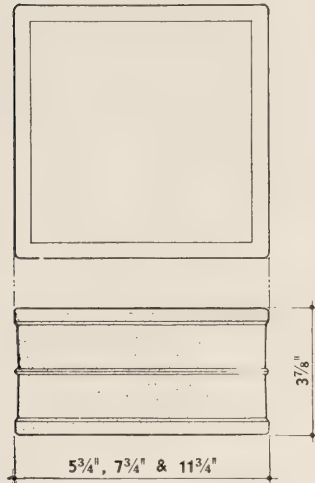
1. In large areas on unshaded East, South, and West exposures where low light transmission and reduced solar heat gain are desired, and conditions are not suitable for use of Prism Light-Directing Blocks.
2. Below eye-level, in combination with Prism Light-Directing Blocks on sun exposures.



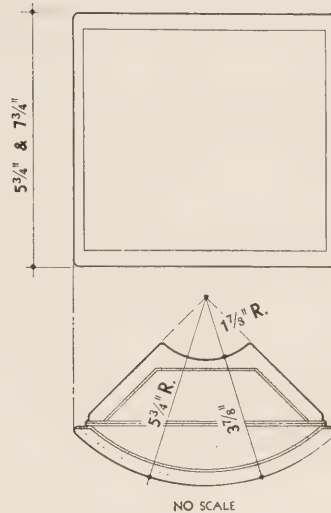
# PC Glass Blocks

## SIZES AND SHAPES AVAILABLE

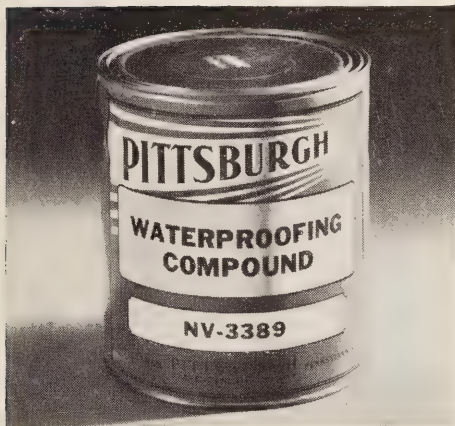
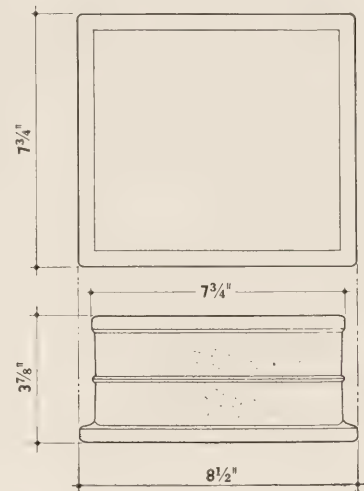
### SQUARE BLOCKS



### CORNER BLOCKS



### RADIAL BLOCKS



**PITTSBURGH NV-3389 WATERPROOFING COMPOUND** — To be added to the mortar to conform with PC specifications. Use one (1) quart per bag of cement.

Available in one-quart, one-gallon, and five-gallon containers.



**These PC accessory materials can be obtained from all suppliers of PC Glass Blocks**



**PC ASPHALT EMULSION** — To be used on all sills to form a waterproof joint. Also used to adhere expansion strips to side and head jambs before installing glass blocks. See specifications for proper application.

Available in one-quart, one-gallon, and five-gallon containers.

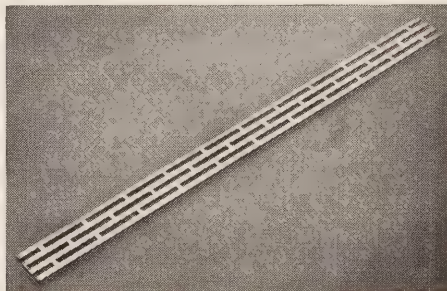


**PC EXPANSION STRIPS** — To be used in expansion spaces at side and head jambs installed in accordance with PC specifications. Strips are supplied with heavy paper on one face. The paper surface is to be installed facing the block panel.

Available in the following sizes:

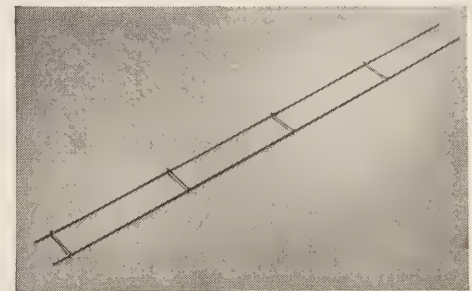
4" x 1/2" x 36" (For use in chase construction)

3" x 1/2" x 36" (For use in wall anchors construction)



**PC WALL ANCHORS** — To be used for supporting panels up to 100 sq. ft. in area where permitted by building code requirements. Spaced and installed in accordance with PC specifications. Wall Anchors are No. 20 gauge perforated steel galvanized after fabrication.

Available in 2'-0" lengths, 1 1/4" wide.



**PC WALL TIES** — To be used in horizontal joints of glass block panels, spaced and installed in accordance with PC specifications. Wall Ties are formed of two No. 9 galvanized wires spaced 2" apart with No. 14 galvanized cross wires welded every 8".

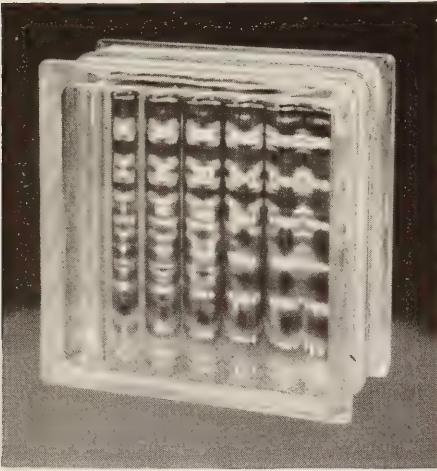
Available in 8' lengths.



# PC Glass Blocks

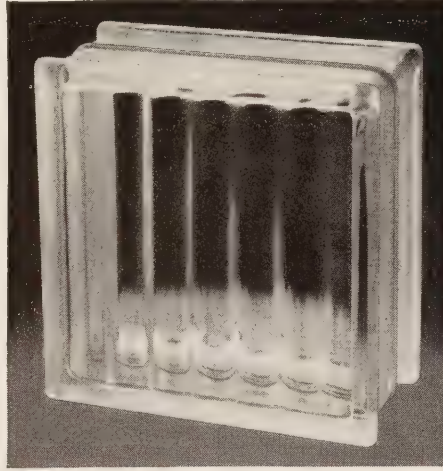
AVAILABLE IN

For light distribution data for all blocks, see page 13



## ARGUS

1. A conventional pattern designed for general use, both decorative and utilitarian.
2. High light transmission, good light diffusion.
3. Can be laid with flutes vertical or horizontal on room side with equally pleasing and efficient results. Caution: When used in combination with corner or radial blocks, if pattern match is desired, the standard blocks must be laid with flutes horizontal on room side.
4. Smooth outside faces permit maximum cleanability.
5. Pattern description: Smooth outside faces, interior flutes identical, assembled at right angles.



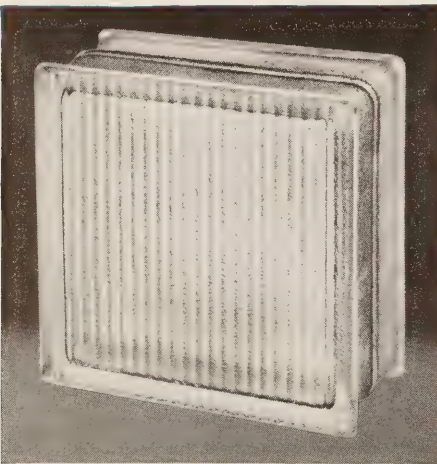
## ARGUS PARALLEL FLUTES

1. A conventional pattern designed for general use, both decorative and utilitarian.
2. High light transmission, good light diffusion.
3. Can be laid with flutes vertical or horizontal with equally pleasing and efficient results. Caution: When used in combination with corner or radial blocks, pattern match can be obtained on only one side of panel.
4. Smooth outside faces permit maximum cleanability.
5. Pattern description: Smooth outside faces, interior flutes identical and parallel.



## DECORA

1. A decorative pattern ideally suited to harmonize with both modern and conventional design.
2. High light transmission with irregular diffusion and high translucency.
3. Asymmetric design permits laying without regard to pattern.
4. Smooth outside faces insure maximum cleanability.
5. Pattern description: Smooth outside faces, asymmetric design on both interior faces.



## BRISTOL

1. Designed to provide softer, more diffused light.
2. Should be laid with exterior flutes vertical.
3. Cleanability maintained by the smooth exterior flutes and lightly etched border.
4. Pattern description: Narrow vertical flutes and lightly etched border on both outside faces, and flat etched inside faces.

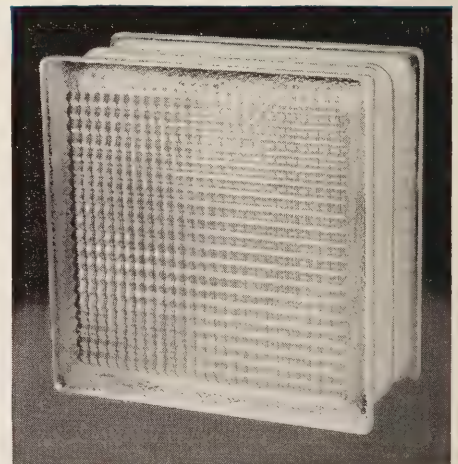
NOTE: This block is supplied in the 7 3/4" sizes only.



## DRUID

1. Designed to provide high light transmission and closely match the Prism Light-Directing unit. For use on elevations without sun exposure when Prism Light-Directing units are used on adjacent sun exposure elevations.
2. Must be laid with exterior flutes vertical.
3. Cleanability is maintained by the smooth exterior flutes and lightly etched border.
4. Pattern description: Narrow vertical flutes and lightly etched border on both outside faces, horizontal flutes on both inside faces. Closely matches appearance of Prism Light-Directing unit.

NOTE: This block is supplied in the 7 3/4" sizes only.



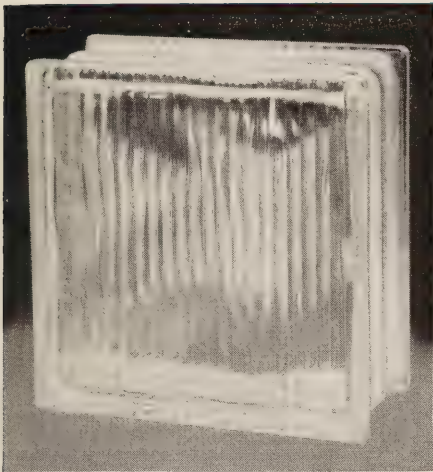
## ESSEX

1. Specially designed for low light transmission. For use below eye-level in panels containing Prism Light-Directing Blocks and on elevations subjected to severe exposure to direct sunlight where Prism Light-Directing Blocks are not adaptable.
2. Must be laid with exterior flutes horizontal.
3. Pattern description: Horizontal spreading flutes and lightly etched borders on both exterior faces, vertical Prisms on both interior faces.

NOTE: This block is supplied in the 7 3/4" size only.

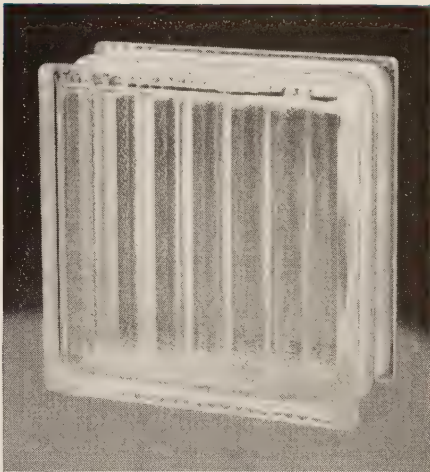


# A WIDE SELECTION OF SIZES AND PATTERNS



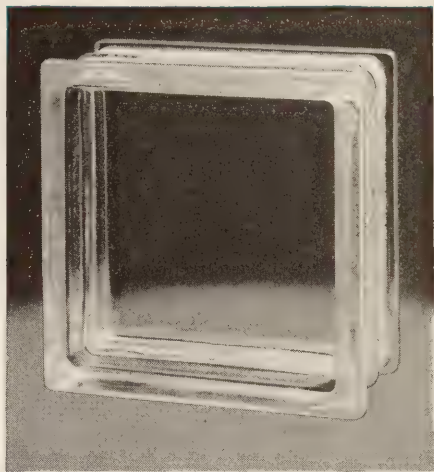
### REEDED-DECORA

- 1. A modified Decora design to increase irregular pattern effects.
- 2. High light transmission with good diffusion and superior obscurity.
- 3. Should be laid with exterior reeds vertical.
- 4. Cleanability is maintained by the smoothly rounded exterior reeds.
- 5. Pattern description: Narrow parallel reeds on both exterior faces, asymmetric design on both interior faces.



### SAXON

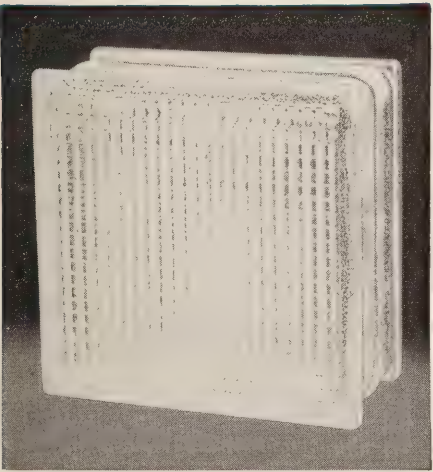
- 1. A pleasing uniform pattern designed for even light diffusion and brightness reduction, but with good light transmission.
- 2. Interior etched surfaces with exterior reeds produce maximum obscurity.
- 3. Should be laid with exterior reeds vertical.
- 4. Cleanability is maintained by the smoothly rounded exterior reeds.
- 5. Pattern description: Narrow parallel reeds on both exterior faces, parallel to wide flutes on both interior faces. Both interior faces are etched.



### VUE

- 1. A pattern employing clear glass surfaces to permit sufficient general vision of large objects or movements beyond the panel to prevent the "shut-in" feeling. However, visibility of sharp details is not possible under most conditions.
- 2. High light transmission.
- 3. Cleanability is assured by smooth exterior surfaces.
- 4. Pattern description: Clear, smooth interior and exterior surfaces.

NOTE: This block is supplied in the 7 3/4" sizes only.



### PRISM LIGHT-DIRECTING

- 1. Specially designed to control the direction of sunlight transmitted by the block, and under proper conditions, to provide improved natural illumination.
- 2. By means of unlike prisms on the two inside faces, the greater part of the transmitted light is directed upward — away from the direct vision or glare zone — to the ceiling where it may be reflected downward to provide indirect "daylighting."

- 3. Can be set in one position only — block is marked to indicate correct setting. Must not be used below eye level. For lower portions of panels below eye level use Essex Blocks.
- 4. Smooth vertical exterior flutes and lightly etched border insure easy cleaning.
- 5. Pattern description: Narrow vertical flutes and etched border on both outside faces, horizontal prisms on both inside faces.

NOTE: This block is supplied in 7 3/4" size only.

(Subject to change without notice)

PATTERNS	SIZES AND SHAPES AVAILABLE					
	5 3/4" Square	7 3/4" Square	11 3/4" Square	5 3/4" Corner	7 3/4" Corner	7 3/4" Radial
Argus	•	•	•	•	•	•
Argus Parallel Flutes	•	•	•			
Bristol		•			•	•
Decora	•	•	•	•	•	•
Druid		•			•	•
Essex		•				
Prism Light-Directing		•				
Reeded-Decora	•	•	•	•	•	•
Saxon	•	•	•	•	•	•
Vue		•				•

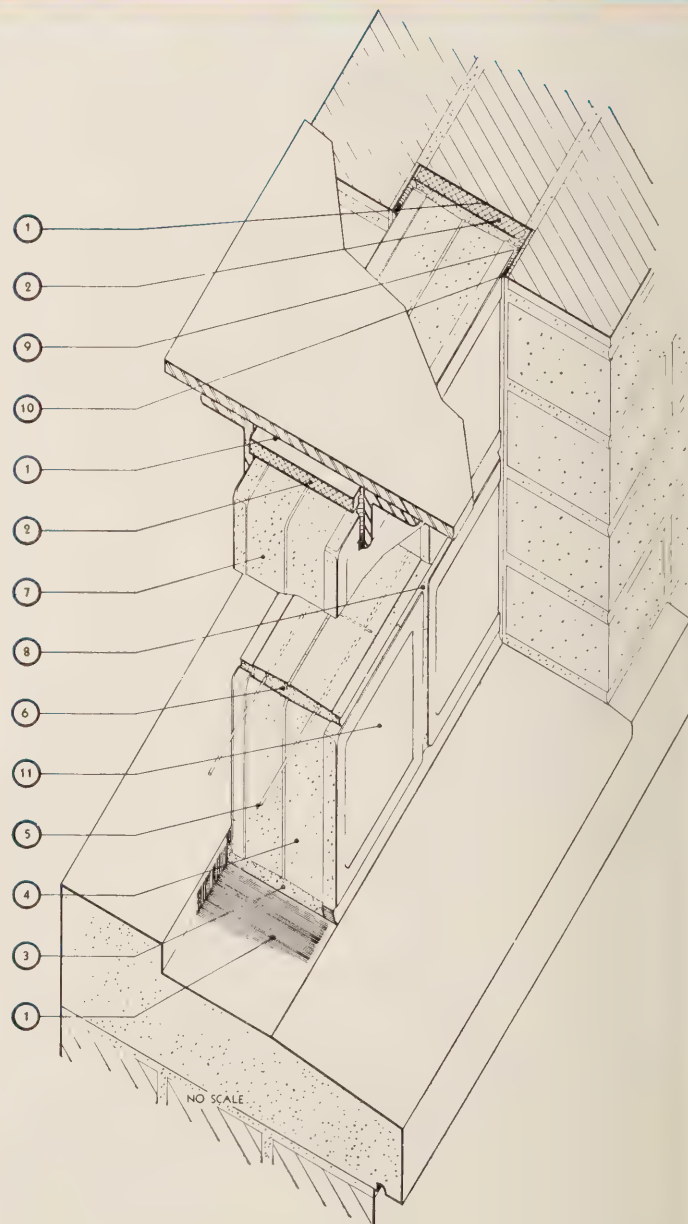


# HOW TO

## INSTALL PC GLASS BLOCKS



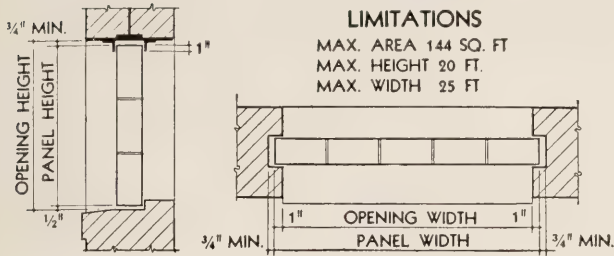
1. Mop entire perimeter of opening with heavy coat of asphalt emulsion.
2. Adhere PC Expansion Strip to jambs and head. Make certain expansion strip extends to sill.
3. Place full mortar bed at sill — do not furrow.
4. Set lower course of block. All vertical and horizontal mortar joints must be full and not furrowed. Steel tools must not be used to tap blocks into final position.
5. Install PC Wall Ties in horizontal joints where required as follows:
  - (a) Place lower half of mortar bed. Do not furrow.
  - (b) Place wall tie centered in joint.
  - (c) Cover wall tie with upper half of mortar bed and trowel smooth. Do not furrow.
  - (d) Wall ties must run from end to end of panels and where used continuously must lap 6". Wall ties must not bridge expansion joints.
6. Place full mortar bed for joints not requiring wall ties — do not furrow.
7. Follow instructions 3, 4 and 6 for setting succeeding courses of blocks.
8. Strike joints smoothly as shown while mortar is still plastic and before final set. At this time rake out all joints requiring caulking to a depth equal to the thickness of joint. Remove surplus mortar from faces of glass blocks and wipe dry.
9. After final mortar set, pack oakum (as specified) tightly into jamb and head construction as shown.
10. Calk interior and exterior perimeter of panel as shown with calking compound as specified.
11. Final cleaning of glass block faces shall not be done until after final mortar set.



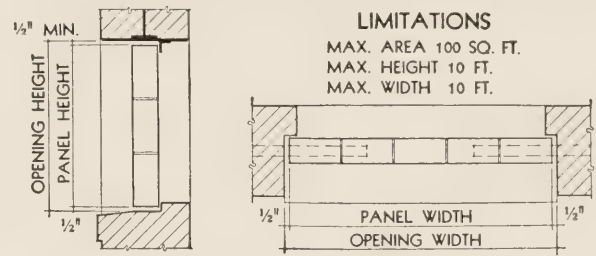


# LAYOUT TABLES FOR PC GLASS BLOCK PANELS

## TYPE "A"—CHASE CONSTRUCTION



## TYPE "B"—WALL ANCHOR CONSTRUCTION



5 3/4" SQUARE BLOCKS 1/4" MORTAR JOINTS					7 3/4" SQUARE BLOCKS 1/4" MORTAR JOINTS					11 3/4" SQUARE BLOCKS 1/4" MORTAR JOINTS				
NO. OF UNITS	PANEL WIDTH OR HEIGHT	TYPE "A"		TYPE "B"	NO. OF UNITS	PANEL WIDTH OR HEIGHT	TYPE "A"		TYPE "B"	NO. OF UNITS	PANEL WIDTH OR HEIGHT	TYPE "A"		TYPE "B"
		MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT				MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT				MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT	MASONRY OPENING HEIGHT & WIDTH
1	5 3/4"	3 3/4"	7"	6 3/4"	1	7 3/4"	5 3/4"	9"	8 3/4"	1	11 3/4"	9 3/4"	1'-1"	1'-0 3/4"
2	11 3/4"	9 3/4"	1'-1"	1'-0 3/4"	2	1'-3 3/4"	1'-1 3/4"	1'-5"	1'-4 3/4"	2	1'-11 3/4"	1'-9 3/4"	2'-1"	2'-0 3/4"
3	1'-5 3/4"	1'-3 3/4"	1'-7"	1'-6 3/4"	3	1'-11 3/4"	1'-9 3/4"	2'-1"	2'-0 3/4"	3	2'-11 3/4"	2'-9 3/4"	3'-1"	3'-0 3/4"
4	1'-11 3/4"	1'-9 3/4"	2'-1"	2'-0 3/4"	4	2'-7 3/4"	2'-5 3/4"	2'-9"	2'-8 3/4"	4	3'-11 3/4"	3'-9 3/4"	4'-1"	4'-0 3/4"
5	2'-5 3/4"	2'-3 3/4"	2'-7"	2'-6 3/4"	5	3'-3 3/4"	3'-1 3/4"	3'-5"	3'-4 3/4"	5	4'-11 3/4"	4'-9 3/4"	5'-1"	5'-0 3/4"
6	2'-11 3/4"	2'-9 3/4"	3'-1"	3'-0 3/4"	6	3'-11 3/4"	3'-9 3/4"	4'-1"	4'-0 3/4"	6	5'-11 3/4"	5'-9 3/4"	6'-1"	6'-0 3/4"
7	3'-5 3/4"	3'-3 3/4"	3'-7"	3'-6 3/4"	7	4'-7 3/4"	4'-5 3/4"	4'-9"	4'-8 3/4"	7	6'-11 3/4"	6'-9 3/4"	7'-1"	7'-0 3/4"
8	3'-11 3/4"	3'-9 3/4"	4'-1"	4'-0 3/4"	8	5'-3 3/4"	5'-1 3/4"	5'-5"	5'-4 3/4"	8	7'-11 3/4"	7'-9 3/4"	8'-1"	8'-0 3/4"
9	4'-5 3/4"	4'-3 3/4"	4'-7"	4'-6 3/4"	9	5'-11 3/4"	5'-9 3/4"	6'-1"	6'-0 3/4"	9	8'-11 3/4"	8'-9 3/4"	9'-1"	9'-0 3/4"
10	4'-11 3/4"	4'-9 3/4"	5'-1"	5'-0 3/4"	10	6'-7 3/4"	6'-5 3/4"	6'-9"	6'-8 3/4"	10	9'-11 3/4"	9'-9 3/4"	10'-1"	10'-0 3/4"
11	5'-5 3/4"	5'-3 3/4"	5'-7"	5'-6 3/4"	11	7'-3 3/4"	7'-1 3/4"	7'-5"	7'-4 3/4"	11	10'-11 3/4"	10'-9 3/4"	11'-1"	
12	5'-11 3/4"	5'-9 3/4"	6'-1"	6'-0 3/4"	12	7'-11 3/4"	7'-9 3/4"	8'-1"	8'-0 3/4"	12	11'-11 3/4"	11'-9 3/4"	12'-1"	
13	6'-5 3/4"	6'-3 3/4"	6'-7"	6'-6 3/4"	13	8'-7 3/4"	8'-5 3/4"	8'-9"	8'-8 3/4"	13	12'-11 3/4"	12'-9 3/4"	13'-1"	
14	6'-11 3/4"	6'-9 3/4"	7'-1"	7'-0 3/4"	14	9'-3 3/4"	9'-1 3/4"	9'-5"	9'-4 3/4"	14	13'-11 3/4"	13'-9 3/4"	14'-1"	
15	7'-5 3/4"	7'-3 3/4"	7'-7"	7'-6 3/4"	15	9'-11 3/4"	9'-9 3/4"	10'-1"	10'-0 3/4"	15	14'-11 3/4"	14'-9 3/4"	15'-1"	
16	7'-11 3/4"	7'-9 3/4"	8'-1"	8'-0 3/4"	16	10'-7 3/4"	10'-5 3/4"	10'-9"		16	15'-11 3/4"	15'-9 3/4"	16'-1"	
17	8'-5 3/4"	8'-3 3/4"	8'-7"	8'-6 3/4"	17	11'-3 3/4"	11'-1 3/4"	11'-5"		17	16'-11 3/4"	16'-9 3/4"	17'-1"	
18	8'-11 3/4"	8'-9 3/4"	9'-1"	9'-0 3/4"	18	11'-11 3/4"	11'-9 3/4"	12'-1"		18	17'-11 3/4"	17'-9 3/4"	18'-1"	
19	9'-5 3/4"	9'-3 3/4"	9'-7"	9'-6 3/4"	19	12'-7 3/4"	12'-5 3/4"	12'-9"		19	18'-11 3/4"	18'-9 3/4"	19'-1"	
20	9'-11 3/4"	9'-9 3/4"	10'-1"	10'-0 3/4"	20	13'-3 3/4"	13'-1 3/4"	13'-5"		20	19'-11 3/4"	19'-9 3/4"	20'-1"	
21	10'-5 3/4"	10'-3 3/4"	10'-7"		21	13'-11 3/4"	13'-9 3/4"	14'-1"		21	20'-11 3/4"	20'-9 3/4"		
22	10'-11 3/4"	10'-9 3/4"	11'-1"		22	14'-7 3/4"	14'-5 3/4"	14'-9"		22	21'-11 3/4"	21'-9 3/4"		
23	11'-5 3/4"	11'-3 3/4"	11'-7"		23	15'-3 3/4"	15'-1 3/4"	15'-5"		23	22'-11 3/4"	22'-9 3/4"		
24	11'-11 3/4"	11'-9 3/4"	12'-1"		24	15'-11 3/4"	15'-9 3/4"	16'-1"		24	23'-11 3/4"	23'-9 3/4"		
25	12'-5 3/4"	12'-3 3/4"	12'-7"		25	16'-7 3/4"	16'-5 3/4"	16'-9"		25	24'-11 3/4"	24'-9 3/4"		
26	12'-11 3/4"	12'-9 3/4"	13'-1"		26	17'-3 3/4"	17'-1 3/4"	17'-5"						
27	13'-5 3/4"	13'-3 3/4"	13'-7"		27	17'-11 3/4"	17'-9 3/4"	18'-1"						
28	13'-11 3/4"	13'-9 3/4"	14'-1"		28	18'-7 3/4"	18'-5 3/4"	18'-9"						
29	14'-5 3/4"	14'-3 3/4"	14'-7"		29	19'-3 3/4"	19'-1 3/4"	19'-5"						
30	14'-11 3/4"	14'-9 3/4"	15'-1"		30	19'-11 3/4"	19'-9 3/4"	20'-1"						
31	15'-5 3/4"	15'-3 3/4"	15'-7"		31	20'-7 3/4"	20'-5 3/4"							
32	15'-11 3/4"	15'-9 3/4"	16'-1"		32	21'-3 3/4"	21'-1 3/4"							
33	16'-5 3/4"	16'-3 3/4"	16'-7"		33	21'-11 3/4"	21'-9 3/4"							
34	16'-11 3/4"	16'-9 3/4"	17'-1"		34	22'-7 3/4"	22'-5 3/4"							
35	17'-5 3/4"	17'-3 3/4"	17'-7"		35	23'-3 3/4"	23'-1 3/4"							
36	17'-11 3/4"	17'-9 3/4"	18'-1"		36	23'-11 3/4"	23'-9 3/4"							
37	18'-5 3/4"	18'-3 3/4"	18'-7"		37	24'-7 3/4"	24'-5 3/4"							
38	18'-11 3/4"	18'-9 3/4"	19'-1"		38	25'-3 3/4"	25'-1 3/4"							
39	19'-5 3/4"	19'-3 3/4"	19'-7"											
40	19'-11 3/4"	19'-9 3/4"	20'-1"											
41	20'-5 3/4"	20'-3 3/4"												
42	20'-11 3/4"	20'-9 3/4"												
43	21'-5 3/4"	21'-3 3/4"												
44	21'-11 3/4"	21'-9 3/4"												
45	22'-5 3/4"	22'-3 3/4"												
46	22'-11 3/4"	22'-9 3/4"												
47	23'-5 3/4"	23'-3 3/4"												
48	23'-11 3/4"	23'-9 3/4"												
49	24'-5 3/4"	24'-3 3/4"												
50	24'-11 3/4"	24'-9 3/4"												



## Exterior Panel Size Limitations with minimum expansion and anchorage requirements

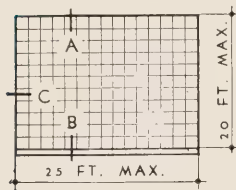
**GENERAL:** Construction supporting panels over 144 square feet in area must be of a type which will provide a minimum of movement and settlement.

Structural members shown

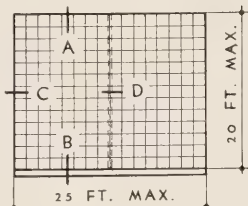
are to indicate principles of construction. Sizes must be calculated for loads applied. Information shown on these sheets is not intended to conflict with any local building code requirements.

### LARGE SIMPLE PANELS

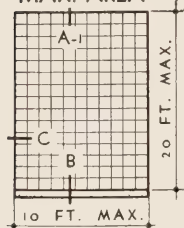
144 SQ. FT.  
MAX. AREA



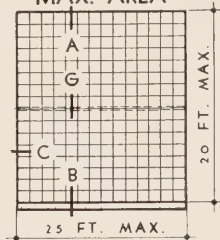
250 SQ. FT.  
MAX. AREA



144 SQ. FT.  
MAX. AREA

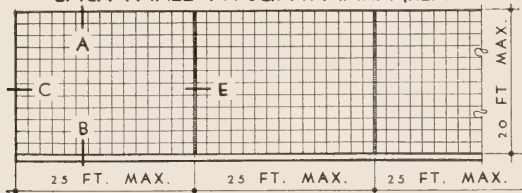


250 SQ. FT.  
MAX. AREA

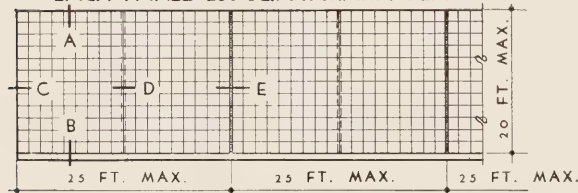


### LARGE CONTINUOUS PANELS

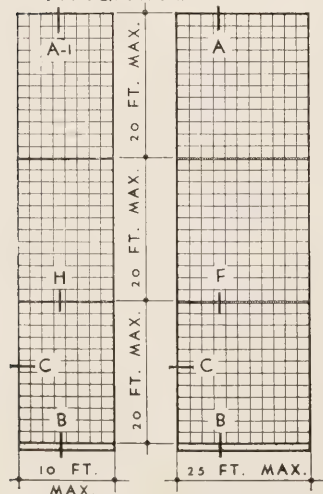
EACH PANEL 144 SQ. FT. MAX. AREA



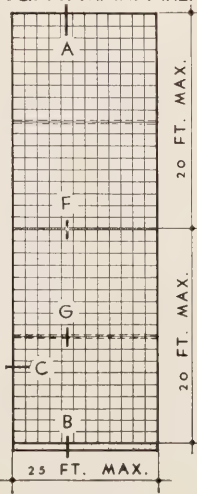
EACH PANEL 250 SQ. FT. MAX. AREA



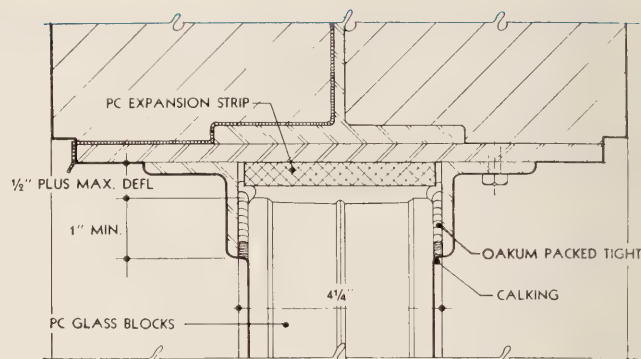
EACH PANEL  
144 SQ. FT. MAX. AREA



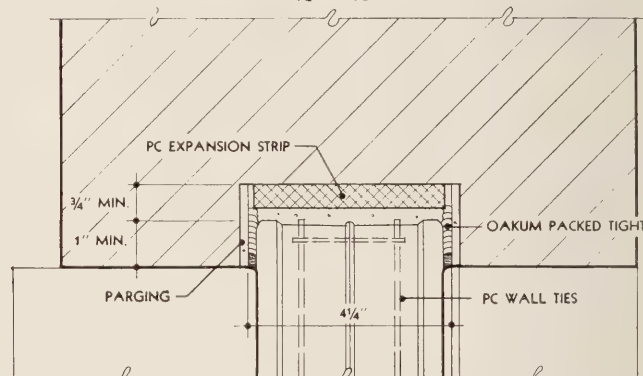
EACH PANEL  
250 SQ. FT. MAX. AREA



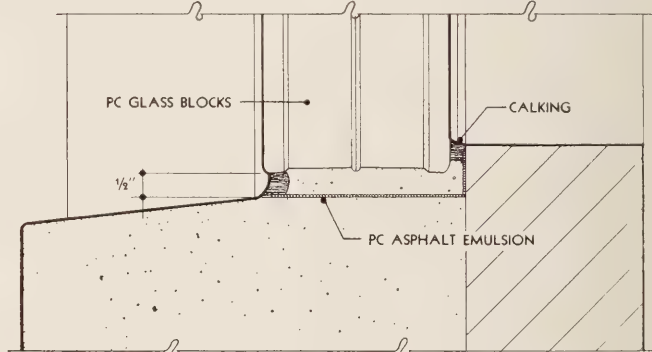
# PC GLASS



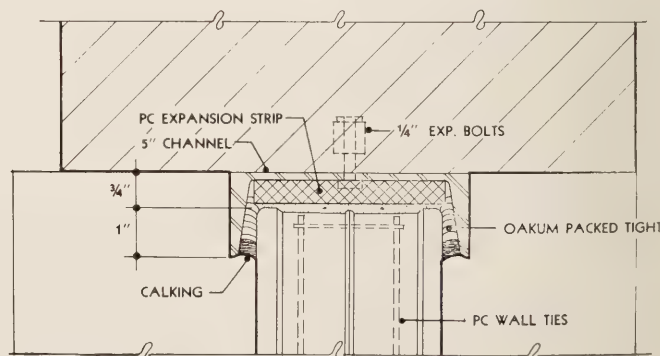
SECTION "A"  
12" MASONRY



SECTION "C"  
12" MASONRY



SECTION "B"  
12" MASONRY

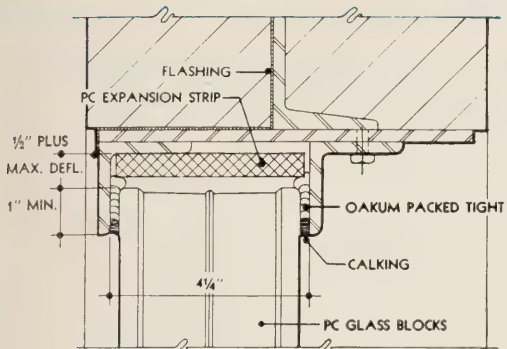


ALTERNATE SECTION "C"  
8" OR 12" MASONRY

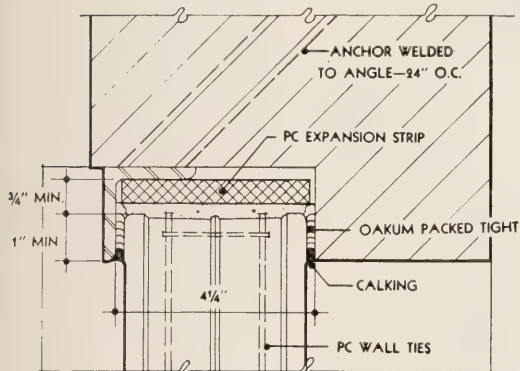
SCALE 3" = 1'-0"



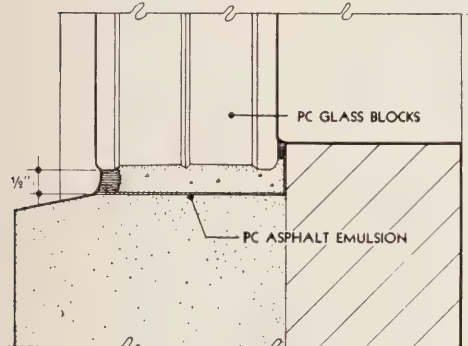
# BLOCKS—INSTALLATION DETAILS



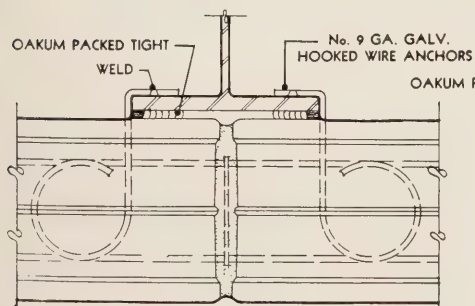
SECTION "A"  
8" MASONRY



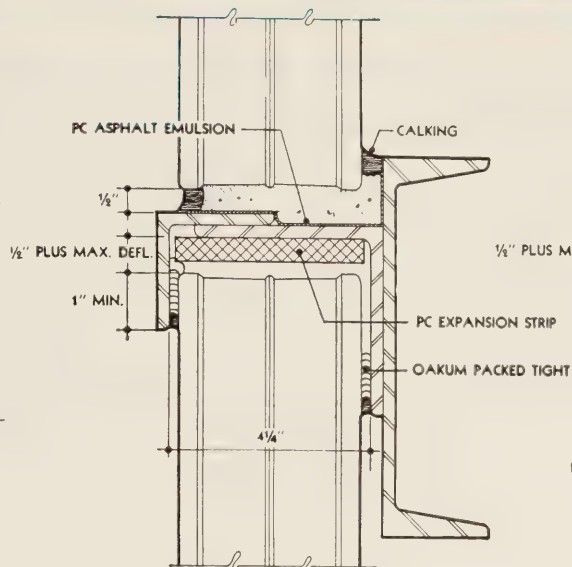
SECTION "C"  
8" MASONRY



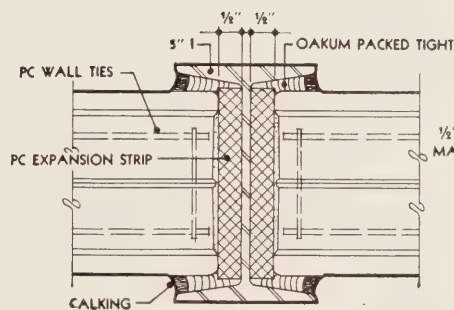
SECTION "B"  
8" MASONRY



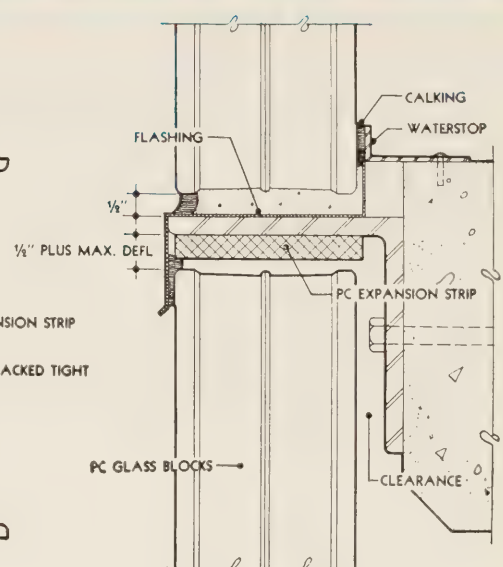
SECTION "D"



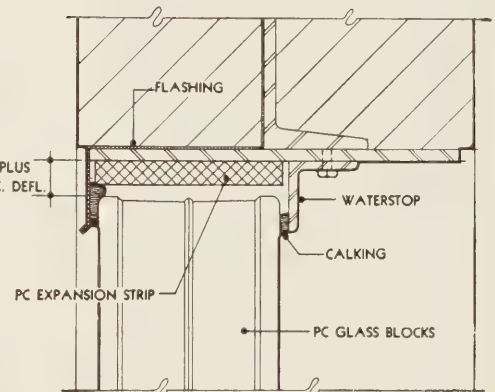
SECTION "F"



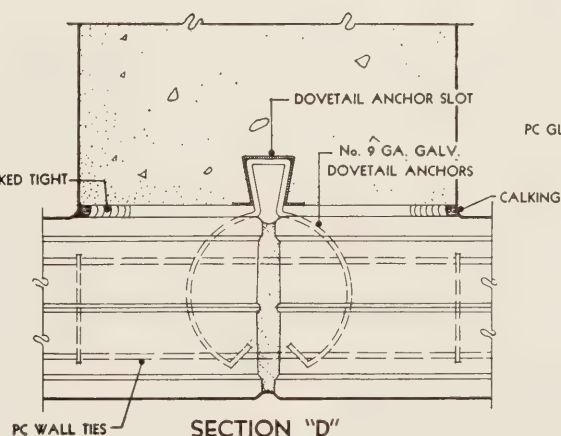
SECTION "E"



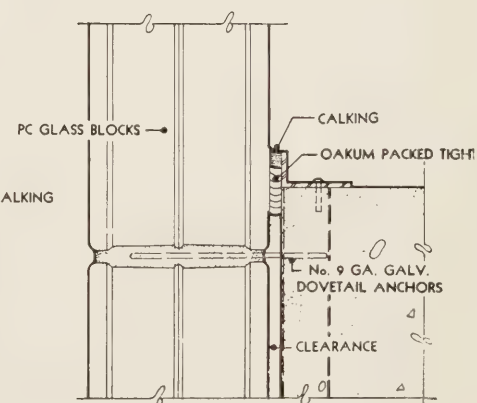
SECTION "H"



SECTION "A-I"



SECTION "D"



SECTION "G"

SCALE 3" = 1'-0"

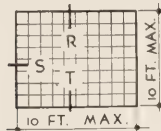


Wall anchors providing lateral support for glass block panels are restricted only by building code requirements and the discretion of the architect. Where wall anchors are forbidden, chase construction shall be used.

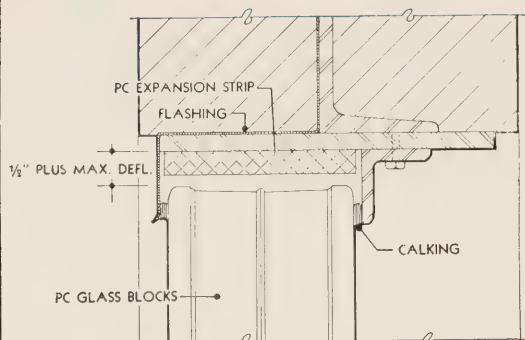
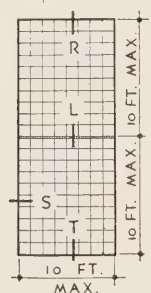
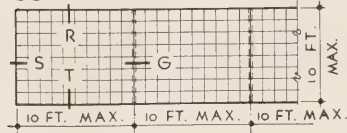
# INSTALLATION DETAILS— FOR SMALL EXTERIOR PANELS

## SMALL EXTERIOR PANELS 100 SQ. FT. MAX. AREA

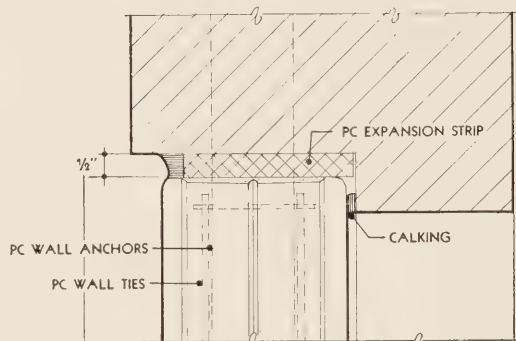
### SIMPLE PANELS



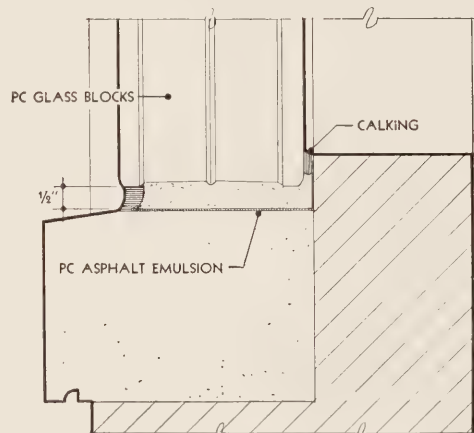
### CONTINUOUS PANELS



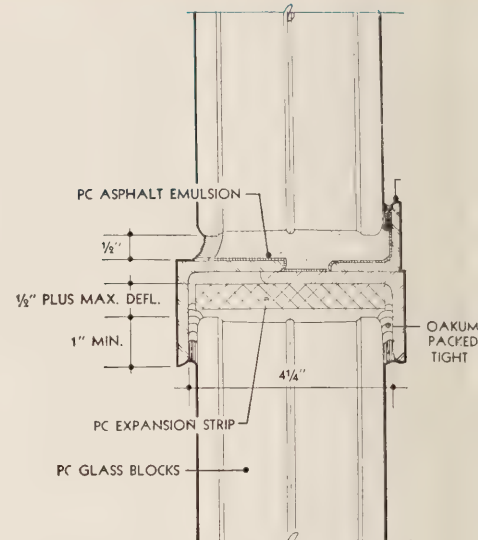
SECTION "R"



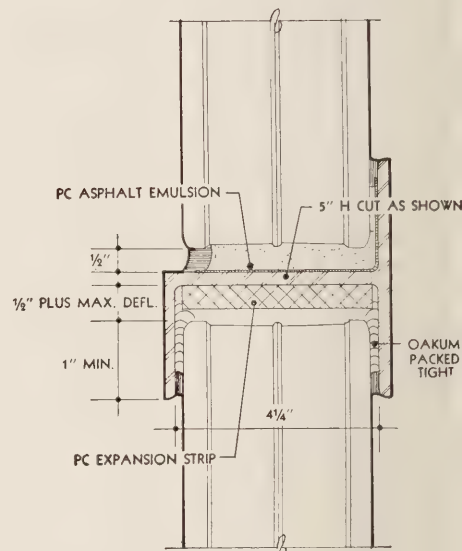
SECTION "S"



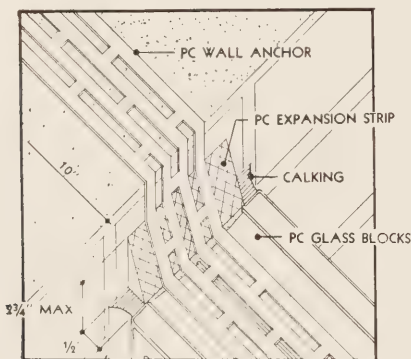
SECTION "T"



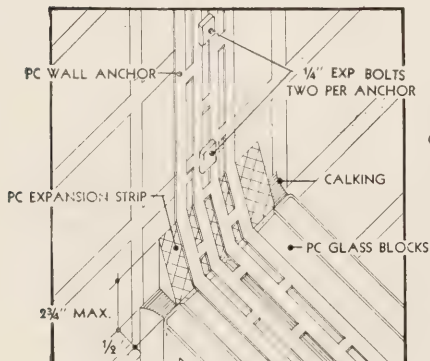
SECTION "L"



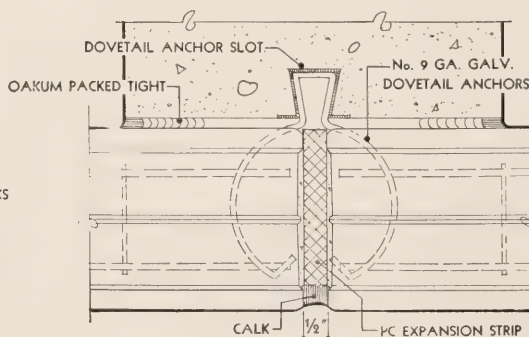
SECTION "L"



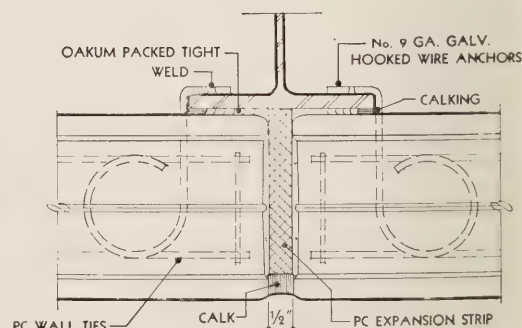
PC WALL ANCHORS  
IN NEW CONSTRUCTION



PC WALL ANCHORS IN  
EXISTING CONSTRUCTION



SECTION "G"

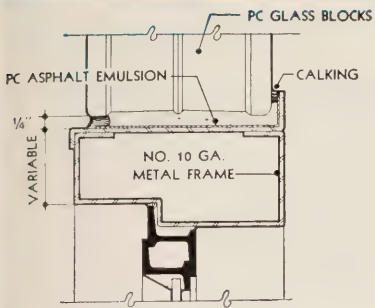


SECTION "G"

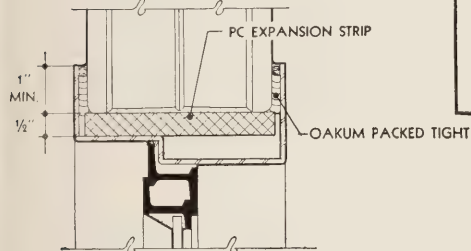
SCALE 3" = 1'-0"



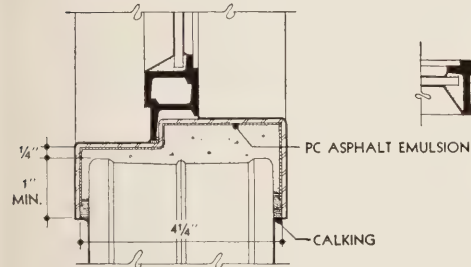
# INSTALLATION DETAILS— FOR SASH AND GLASS BLOCK COMBINATIONS



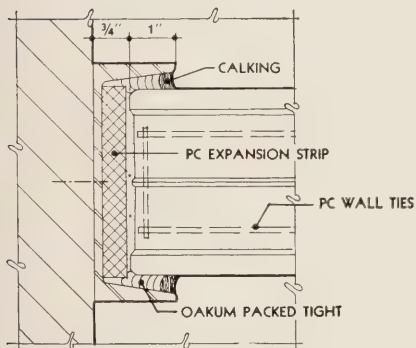
SECTION "H"



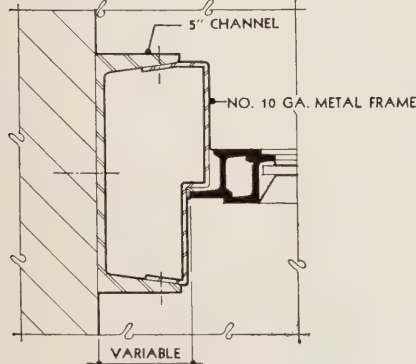
SECTION "L"



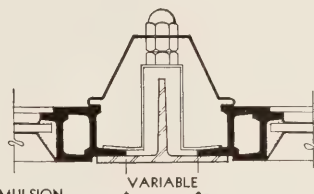
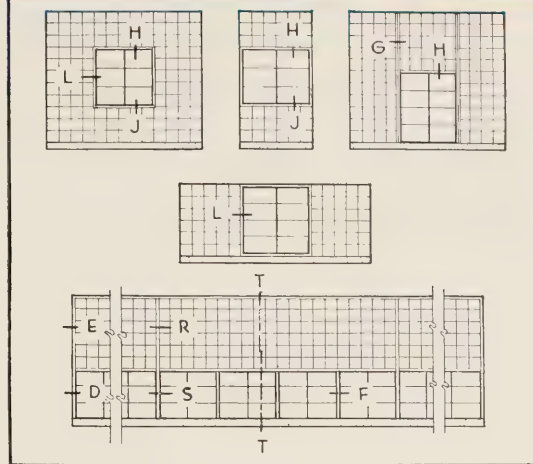
SECTION "J"



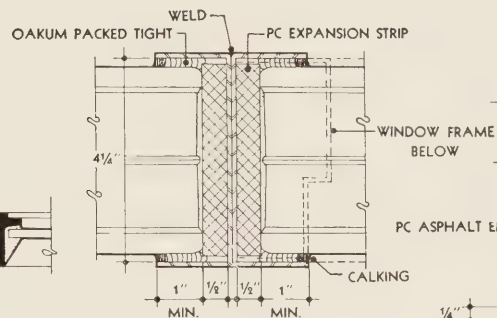
SECTION "E"



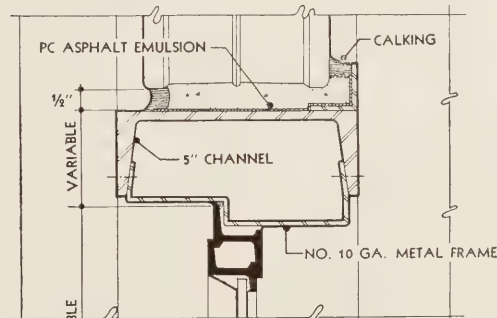
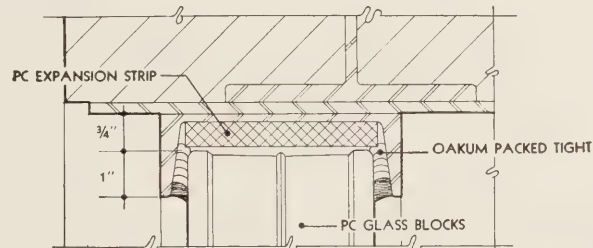
SECTION "D"



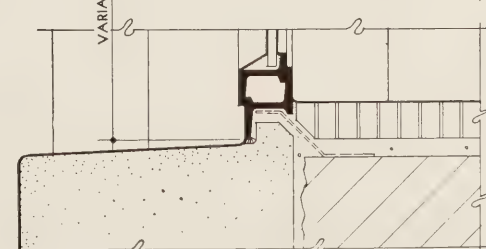
SECTION "F"



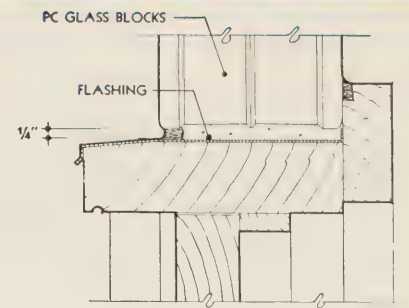
SECTION "G"



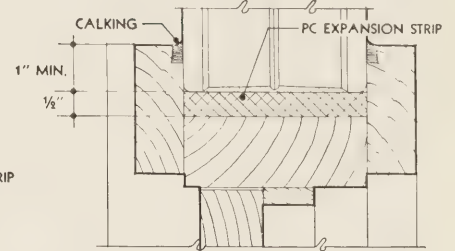
SECTION "T" - "T"



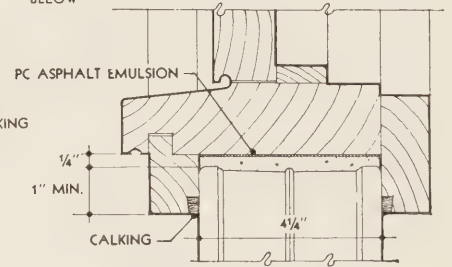
SCALE 3" = 1'-0"



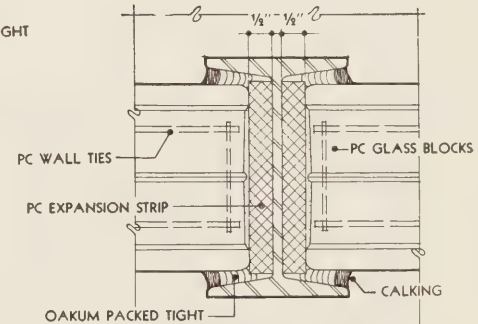
SECTION "H"



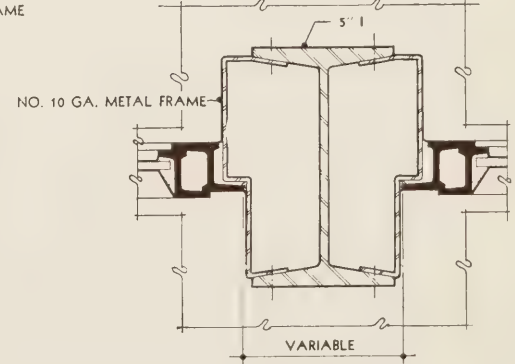
SECTION "L"



SECTION "J"



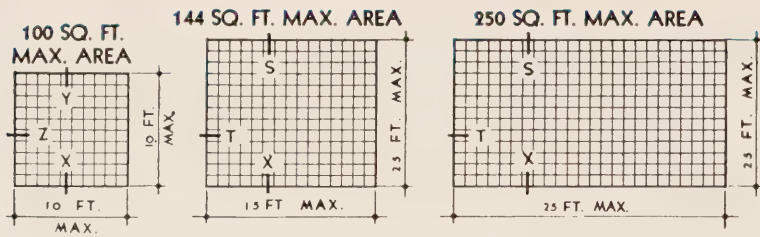
SECTION "R"



SECTION "S"



# INSTALLATION DETAILS— FOR INTERIOR PANELS

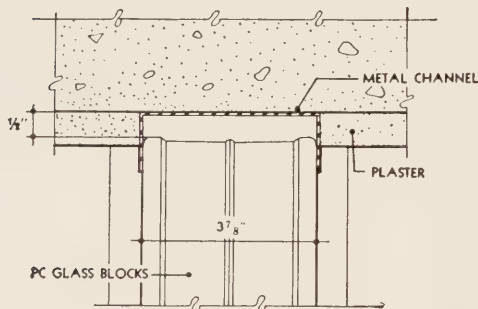


INTERIOR PANEL SIZE LIMITATIONS WITH  
MINIMUM EXPANSION & ANCHORAGE REQUIREMENTS

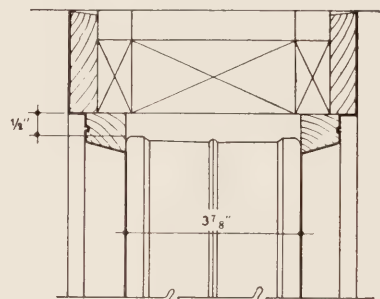
Construction supporting panels over 144 square feet in area must be of a type which will provide a minimum of movement and settlement.

Information shown on this sheet is not intended to conflict with any local building code requirements.

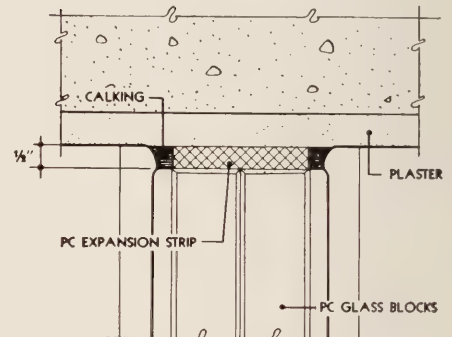
Before glass blocks are installed in wood partitions, all wood adjacent to mortar shall be properly primed.



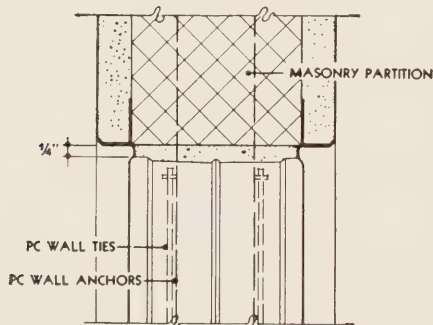
SECTION "S"



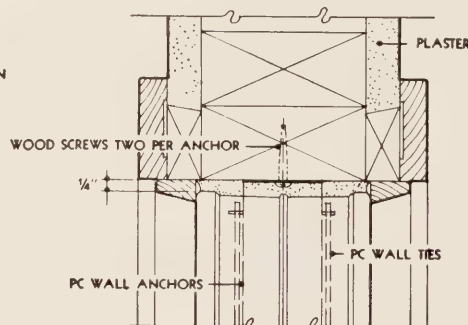
SECTION "S"



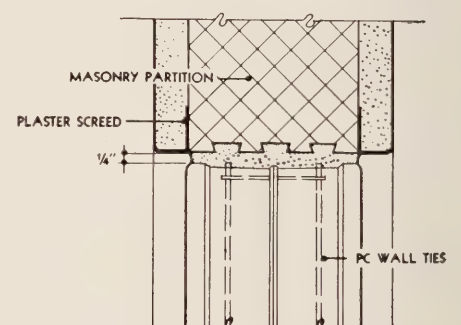
SECTION "Y"



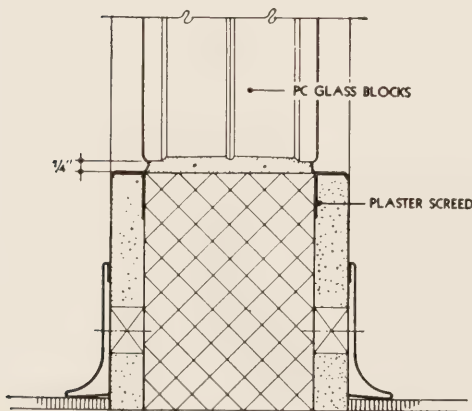
SECTION "T"



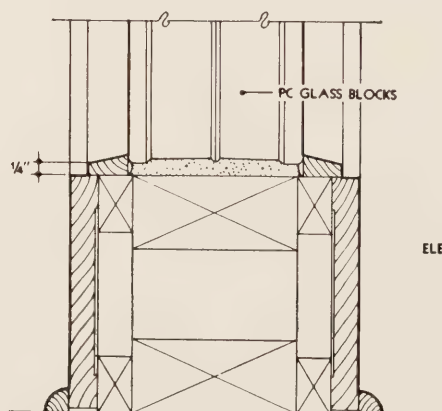
SECTION "T"



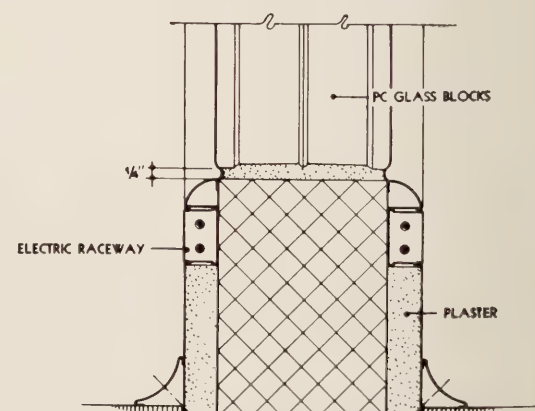
SECTION "Z"



SECTION "X"



SECTION "X"

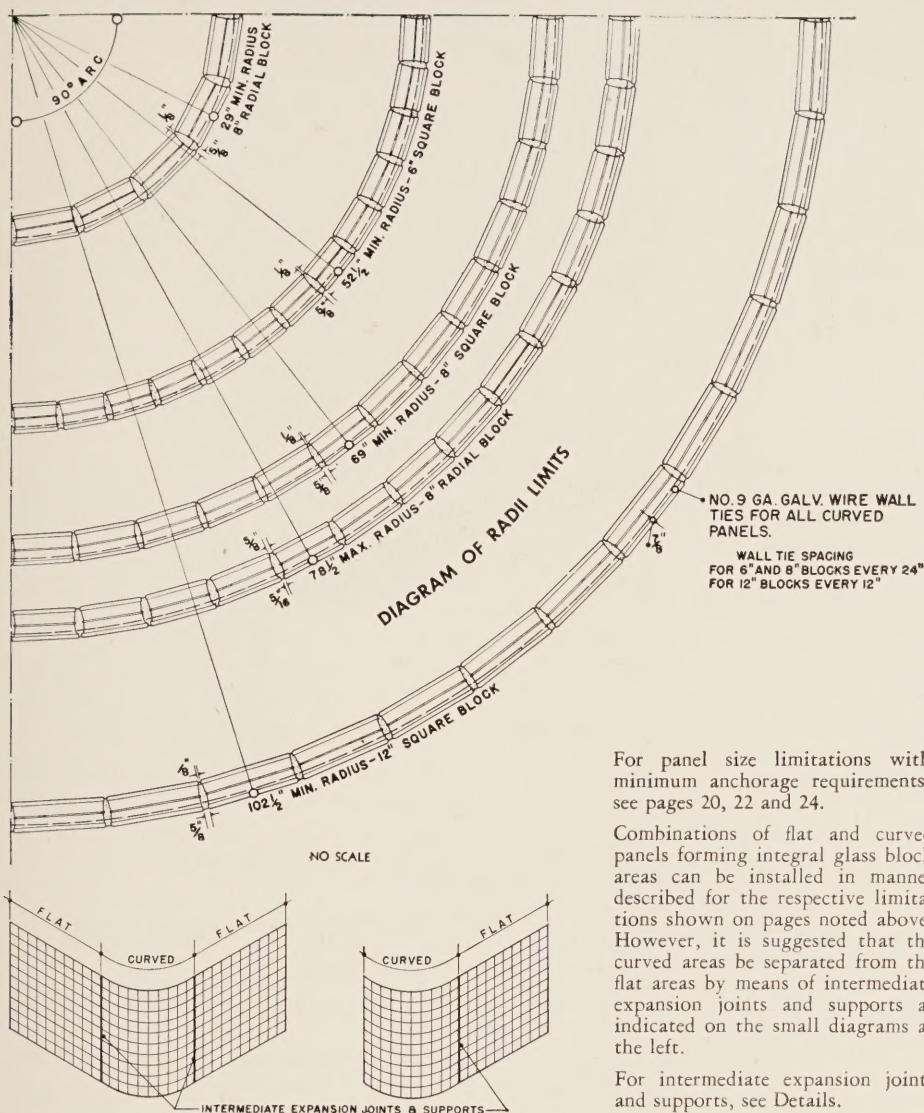


SECTION "X"

SCALE 3" = 1'-0"



CURVED PANEL INSTALLATION REQUIREMENTS WITH TABLE OF RADII LIMITS



For panel size limitations with minimum anchorage requirements, see pages 20, 22 and 24.

Combinations of flat and curved panels forming integral glass block areas can be installed in manner described for the respective limitations shown on pages noted above. However, it is suggested that the curved areas be separated from the flat areas by means of intermediate expansion joints and supports as indicated on the small diagrams at the left.

For intermediate expansion joints and supports, see Details.

TABLE OF RADII LIMITS FOR CURVED PANELS

Outside Radius Inches	Number of Block in 90° Circular Arc	Joint Thickness in Inches		Re- marks
		Inside	Outside	
6" SQUARE BLOCK				
52 $\frac{1}{2}$	13	$\frac{1}{8}$	$\frac{5}{8}$	Mini- mum
56 $\frac{1}{4}$	14	$\frac{1}{8}$	$\frac{9}{16}$	
56 $\frac{3}{4}$	14	$\frac{1}{16}$	$\frac{5}{8}$	
60	15	$\frac{1}{8}$	$\frac{9}{16}$	
61	15	$\frac{1}{16}$	$\frac{5}{8}$	
63 $\frac{3}{4}$	16	$\frac{1}{8}$	$1\frac{1}{2}$	
65	16	$\frac{1}{16}$	$\frac{5}{8}$	
67 $\frac{1}{2}$	17	$\frac{1}{8}$	$1\frac{1}{2}$	
69	17	$\frac{1}{16}$	$\frac{5}{8}$	
71 $\frac{1}{4}$	18	$\frac{1}{8}$	$\frac{7}{8}$	
73	18	$\frac{1}{16}$	$\frac{5}{8}$	

No Maximum Limitations.

8" SQUARE BLOCK				
69	13	$\frac{1}{8}$	$\frac{5}{8}$	Minimum
74	14	$\frac{1}{8}$	$\frac{9}{16}$	
74 $\frac{3}{4}$	14	$\frac{1}{16}$	$\frac{5}{8}$	
79	15	$\frac{1}{8}$	$1\frac{1}{2}$	
80	15	$\frac{1}{16}$	$\frac{5}{8}$	
84	16	$\frac{1}{8}$	$1\frac{1}{2}$	
85 $\frac{1}{4}$	16	$\frac{1}{16}$	$\frac{5}{8}$	

8" RADIAL BLOCK				
29	5	1/8	5/8	Minimum
34	6	1/8	5/8	
34 3/4	6	1/16	5/8	
39	7	1/8	1 1/4	
40 3/4	7	1/16	5/8	
44	8	1/8	1 1/8	
46 1/2	8	1/16	5/8	
49 1/2	9	1/8	1 1/8	Use Square Block for larger radii
51 3/4	9	1/16	5/8	
55	10	1/8	1 1/8	
57 1/4	10	1/16	5/8	
60 1/2	11	1/8	1 1/8	
62 1/2	11	1/16	5/8	
66	12	1/8	1 1/8	
67 3/4	12	1/16	5/8	
71 1/2	13	1/8	1 1/8	
73 1/4	13	1/16	5/8	
76 3/4	14	1/8	1 1/8	
78 1/2	14	1/16	5/8	

12" SQUARE BLOCK				
102 1/2	13	1/8	5/8	Minimum

No Maximum Limitations.

NOTE: Radii given to closest quarter inch; joint thicknesses to closest sixteenth inch.

Guide No. 40 UM2.6.5. December 11, 1945 File R2556.

Pittsburgh Corning Corp., Mfr.,  
632 Duquesne Way, Pittsburgh 22, Pa.

Glass Blocks.

For window openings not exceeding 120 sq ft in area, nor 12 ft in width or height, subject to light fire exposure (Class F openings). Argus, Argus Parallel, Bristol, Druid, Decora, Essex, and Saxon PC hollow glass blocks, nominally 7-3/4 by 7-3/4 by 3-7/8 in., and Argus, Argus Parallel, Decora, and Saxon 5-3/4 by 5-3/4 in. face dimensions, 3-7/8 in. thick; laid with 1/4 in. horizontal and vertical mortar joints; mortar consisting of one part portland cement, one part hydrated lime, and four parts No. 1 screened torpedo sand by volume; each horizontal joint except between the two top rows reinforced for full length with No. 9 and 14 Bwg galvanized wire mesh; the glass block panels extending 1-1/4 in. into grooves 2-1/4 in. deep in jams and lintel of the masonry openings, with glass or mineral wool in the remaining spaces in the grooves, to provide for expansion of the glass panels; exterior jamb and lintel edges caulked with waterproofing mastic.

Marking: Letters "PC", pattern designation, size and manufacturer's name on container.

Listed—Reexamination Service.

See description of Reexamination Service on guide card.

Authorities having jurisdiction should be consulted before installation.

This card replaces R2556 dated Jan. 2, 1941.  
This card is issued by Underwriters' Laboratories, Inc.

PC GLASS BLOCKS

Approved by

Underwriters' Laboratories, Inc.

NOTE: For information regarding details of chase construction required, consult the Pittsburgh Corning Corporation, 632 Duquesne Way, Pittsburgh, Pa., or your nearest branch of the Pittsburgh Plate Glass Company.

PC GLASS BLOCKS APPROVED  
BY BUILDING CODE AUTHORITIES

Building Code Authorities throughout the country have accepted and approved the use of PC Glass Blocks as a building material of adequate strength for non-load-bearing construction when installed according to the manufacturer's directions.



# PC Glass Blocks — CLOSED SPECIFICATIONS

**GENERAL CONDITIONS:** The "General Conditions" of the contract are a part of these specifications.

**SCOPE OF THE WORK:** This contractor shall furnish all labor and materials to install all glass blocks where shown on the drawings or specified hereinunder. This shall include the furnishing and installation of all expansion joint strips, oakum packing, felts, wall ties, wall anchors, calking, asphalt emulsion, and other labor and materials necessary for a complete installation. This contract does not include the preparation of the structure to receive the glass block panels, such as chases, stiffeners, etc., except as hereinafter specified.

**MATERIALS:** Glass Blocks . . . shall be hollow, partially evacuated, clear, colorless glass units as manufactured by the Pittsburgh Corning Corporation. Units shall be "all glass," formed of two halves fused together at a high temperature. Edges shall be so formed as to provide a "key-lock" mortar joint. All blocks shall be coated on the edges with a grit-bearing, water-and-alkaline-resistant plastic material.

**Patterns — Sizes — Shapes . . .** shall be as shown on the drawings or as specified hereinunder:

(Indicate PC patterns, sizes and shapes, and locations)

**Expansion Joint Materials . . .** where shown or required, shall be PC Expansion Strips as furnished by Pittsburgh Corning Corporation.

**Asphalt Emulsion . . .** where shown or required, shall be PC Asphalt Emulsion as furnished by Pittsburgh Corning Corporation.

**Wall Ties . . .** shall be PC Wall Ties of steel double wire mesh formed of two parallel wires (No. 9 gage) 2" on centers with electrically welded cross wires (No. 14 gage) at regular intervals, and shall be galvanized. Wall ties shall be installed in horizontal mortar joints of all glass block panels as follows:

- For  $5\frac{3}{4}$ " size blocks — Every four courses.
- For  $7\frac{3}{4}$ " size blocks — Every three courses.
- For  $11\frac{3}{4}$ " size blocks — Every course.

Wall ties shall run continuously with ends lapped not less than 6 in. and shall run from end to end of panel. Wall ties shall not bridge expansion joints.

**Wall Anchors . . .** where shown on drawings shall be PC Wall Anchors as furnished by the Pittsburgh Corning Corporation and shall be No. 20 gage perforated steel strips 24 in. long by  $1\frac{3}{4}$  in. wide galvanized after perforating. All wall anchors must be crimped within expansion joints, and shall generally be placed in the same joint as wall ties and must be completely embedded in the mortar joint of the glass block panels.

**Mortar . . .** shall be one (1) part Portland Cement, one (1) part lime, and four (4) to six (6) parts sand all measured by dry volumes, and *integral type waterproofer*, mixed to a consistency as stiff as will permit good working and shall be drier than for ordinary clay brickwork. For interior panels the waterproofer may be omitted. Admixtures in the form of setting accelerators and anti-freeze compounds shall not be used.

NOTE: At the discretion of the architect or engineer, a mortar prepared from masonry cement of low volume change, incorporating metallic stearate type waterproofer, and mixed in accordance with manufacturer's recommendation may be specified as an alternate.

**Cement . . .** shall be Type I conforming to the Standard Specifications for Portland Cement (A.S.T.M. Designation: C150-44).

**Lime . . .** shall be a high-calcium type\* hydrated lime or masons' hydrate conforming to the Standard Specifications for Hydrated Lime for Structural Purposes (A.S.T.M. Designation: C6-44); or a well-slacked quicklime putty conforming to the Standard Specifications for quicklime for Structural Purposes (A.S.T.M. Designation: C5-26). Hydrated lime shall be soaked at least two (2) hours, and quicklime shall be slaked not less than forty-eight (48) hours and screened prior to use in mortar. Where lime in the form of putty is used, the amount specified shall be interpreted as the actual volume of putty.

\*NOTE: Hydrated lime of the magnesia or dolomitic type may be used provided that not less than 92% of all active ingredients are completely hydrated.

**Sand . . .** shall conform with Standard Specifications for Aggregate for Masonry Mortar, Intermediate Grading (A.S.T.M. C144-44), but shall contain particles of such size that not more than twelve (12) per cent by weight shall pass a No. 100 mesh sieve, and one hundred (100) per cent shall pass through a No. 8 mesh sieve, as defined therein.

**Waterproofer . . .** shall be Pittsburgh Plate Glass Co. type NV-3389 (metallic stearate type). It shall be added to the mortar at the time of mixing and in the proportion recommended by the manufacturer, except where a water-proof Portland Cement or prepared masonry mortar is used. In the latter cases, no waterproofer shall be added at the time of mixing.

**Oakum . . .** where indicated on drawings or required for lateral cushioning of glass block panels at jambs and head chases, shall be of non-staining type treated to prevent dry rot, and shall be subject to the approval of the architect or engineer.

**Calking . . .** mastic calking compounds as approved by the architect shall be applied evenly and to the full depth of recess provided at both interior and exterior perimeters of all glass block panels.

**FLASHINGS:** Unless otherwise specified, contractor shall furnish and install in locations shown or where required, flashings as are necessary to provide a complete installation.

**INSTALLATION:** Sills shall be heavily coated with asphalt emulsion which shall be allowed to dry for at least two hours before mortar is placed. Expansion joint strips shall be adhered to the jambs and head with asphalt emulsion, and shall run continuously in the expansion space, and must rest directly on the sill.

All mortar joints must be completely filled with mortar and *shall not be furrowed*. Mortar must not bridge across expansion joints. Blocks shall be laid up plumb, true to line, and with one-quarter ( $\frac{1}{4}$ ) in.\* visible width mortar joints. While mortar is still plastic and before final set, the joints shall be compressed to a depth necessary to expose the corners of the blocks as sharp, clean lines, and joints shall immediately be tooled slightly concave and smooth. The number of courses of glass blocks laid in successive lifts shall be limited to prevent compaction of joints.

\*Unless otherwise specified.

**CLEANING:** While mortar is still plastic and before final set, this contractor shall clean off all mortar and foreign material from the glass block surfaces. Final cleaning shall be done by others, after mortar has reached its final set.



# Why it Pays to Specify

## PC GLASS BLOCKS



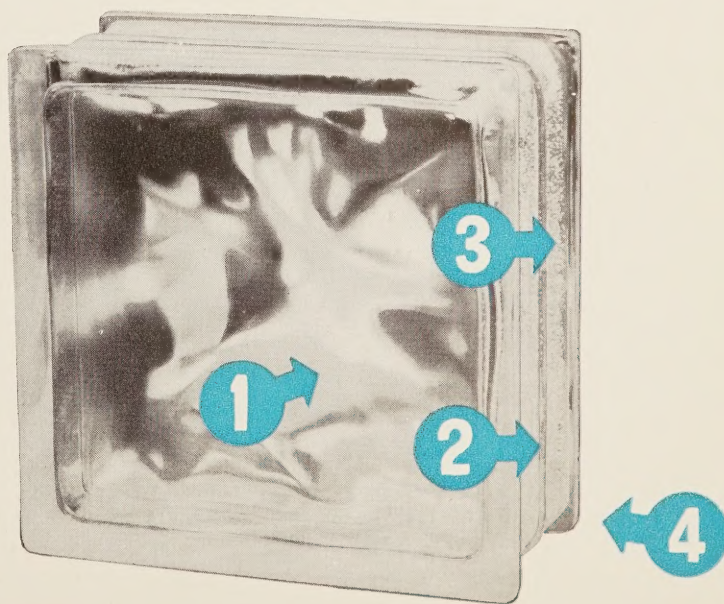
**1.** PC Glass Blocks are made of clear, colorless glass of proven durability. The light which streams through them is of full daylight tone, requiring no special consideration in the matching of colors, either for decoration or production uniformity.

**2.** PC Glass Blocks are hollow "all glass" units with fused seals made at high temperatures, relatively free of entrapped water vapor. This feature was developed by our engineers so that PC Glass Blocks will remain tightly sealed. Because of this method of "all glass" construction, the seal has the same coefficient of expansion as the block itself. The joint is as strong as any other part of the block. This tight seal insures a dry, dead-air space within the block which is so important to efficient heat insulation.

**3.** PC Glass Blocks have all-glass mortar edges with grit-bearing water-and-alkaline-resistant plastic coating. This forms a permanent bond between glass and mortar, which insures a high degree of wind resistance and weather-tightness. As is the case with all masonry, voids in mortar joints are a chief cause of leaky walls. The mason can prevent this trouble by using care in completely filling all mortar joints.

**4.** PC Glass Block edge construction forms a "key-lock" mortar joint, providing a full bed of mortar, yet permitting a visible joint of only about  $\frac{1}{4}$  inch, resulting in a trim panel that is pleasing to the eye. And this "key-lock" joint is easier to handle in laying.

These are all features that assure consumer satisfaction. Better color — neater appearance in panels — greater durability — all are important. All of them guard the investment of the final consumer — and the reputation of those who have recommended and installed the material.





# PC Glass Blocks

Manufactured by

**PITTSBURGH CORNING CORPORATION**  
632 Duquesne Way  
**PITTSBURGH 22, PA.**

Available in the following cities through  
**PITTSBURGH PLATE GLASS COMPANY**

AKRON 4, OHIO  
ALBANY 1, N. Y.  
ALLENTOWN, PA.  
AMARILLO, TEXAS  
ANN ARBOR, MICH.  
ATLANTA 1, GA.  
AUGUSTA, GA.  
AURORA, ILL.  
BALTIMORE 1, MD.  
BEAUMONT, TEXAS  
BIRMINGHAM 1, ALA.  
BOSTON 15, MASS.  
BRONX 51, N. Y.  
BUFFALO 2, N. Y.  
BURLINGTON, VT.  
BUTTE, MONT.  
CHARLESTON, S. C.  
CHARLOTTE 1, N. C.  
CHICAGO 11, ILL.  
CINCINNATI 2, OHIO  
CLEVELAND 14, OHIO  
COLUMBIA 3, S. C.  
COLUMBUS 1, OHIO  
CORPUS CHRISTI, TEXAS  
DALLAS 2, TEXAS  
DANVILLE, ILL.  
DAVENPORT, IOWA  
DECATUR 21, ILL.  
DENVER 1, COLO.  
DES MOINES 6, IOWA  
DETROIT 2, MICH.  
DUBUQUE, IOWA  
DULUTH 2, MINN.

DURHAM, N. C.  
ELGIN, ILL.  
EL PASO, TEXAS  
ERIE, PA.  
FINDLAY, OHIO  
FORT WORTH 1, TEXAS  
FOSTORIA, OHIO  
GALESBURG, ILL.  
GRAND RAPIDS 2, MICH.  
GREENSBORO, N. C.  
GREENVILLE, S. C.  
HAMILTON, OHIO  
HAMMOND, IND.  
HARRISBURG, PA.  
HARTFORD 1, CONN.  
HIGH POINT, N. C.  
HOUSTON 1, TEXAS  
INDIANAPOLIS 6, IND.  
IOWA CITY, IOWA  
JACKSON, MICH.  
JACKSONVILLE 3, FLA.  
JEANNETTE, PA.  
JOPLIN, MO.  
KANSAS CITY 6, MO.  
KITTANNING, PA.  
KNOXVILLE 12, TENN.  
LACROSSE, WIS.  
LEXINGTON, KY.  
LIMA, OHIO  
LINCOLN 1, NEBR.  
LITTLE ROCK, ARK.  
LOUISVILLE 1, KY.  
LYNCHBURG, VA.

MACON, GA.  
MADISON 3, WIS.  
MANCHESTER, N. H.  
MANSFIELD, OHIO  
MASON CITY, IOWA  
MEMPHIS 1, TENN.  
MIAMI 31, FLA.  
MILWAUKEE 1, WIS.  
MINEOLA, N. Y.  
MINNEAPOLIS 15, MINN.  
MOBILE 1, ALA.  
MONTGOMERY 3, ALA.  
MT. VERNON, N. Y.  
MUSKEGON 4, MICH.  
NASHVILLE 2, TENN.  
NEWARK 8, N. J.  
NEW CASTLE, PA.  
NEW HAVEN 13, CONN.  
NEW ORLEANS 1, LA.  
NEW YORK (Brooklyn 1), N. Y.  
OKLAHOMA CITY 2, OKLA.  
OMAHA 1, NEBR.  
OSHKOSH, WIS.  
PADUCAH, KY.  
PARKERSBURG, W. VA.  
PEORIA 2, ILL.  
PHILADELPHIA 32, PA.  
PITTSBURGH 22, PA.  
PORTSMOUTH, OHIO  
PROVIDENCE 1, R. I.  
RACINE, WIS.  
RICHMOND 3, VA.  
ROANOKE 5, VA.

ROCHESTER 8, N. Y.  
ROCKFORD, ILL.  
SAGINAW, MICH.  
ST. JOSEPH 7, MO.  
ST. LOUIS 10, MO.  
ST. PAUL 1, MINN.  
SALINA, KANSAS  
SAN ANTONIO 6, TEXAS  
SAVANNAH, GA.  
SCRANTON 9, PA.  
SHREVEPORT 90, LA.  
SIOUX FALLS, S. DAK.  
SOUTH BEND 24, IND.  
SPRINGFIELD 5, MASS.  
SPRINGFIELD, ILL.  
SPRINGFIELD, MO.  
SPRINGFIELD, OHIO  
SYRACUSE 1, N. Y.  
TAMPA 1, FLA.  
TERRE HAUTE, IND.  
TIFFIN, OHIO  
TOLEDO 6, OHIO  
TOPEKA, KAN.  
TULSA 1, OKLA.  
UTICA 3, N. Y.  
WASHINGTON 2, D. C.  
WASHINGTON, PA.  
WICHITA 1, KAN.  
WILKES-BARRE, PA.  
WILMINGTON, DEL.  
WORCESTER, MASS.  
YOUNGSTOWN 3, OHIO  
ZANESVILLE, OHIO

## ON THE PACIFIC COAST, THROUGH THE BRANCHES OF W. P. FULLER & CO.

PHOENIX, ARIZ.  
TUCSON, ARIZ.  
ALAMEDA, CALIF.  
ALHAMBRA, CALIF.  
BAKERSFIELD, CALIF.  
BERKELEY, CALIF.  
BEVERLY HILLS, CALIF.  
EUREKA, CALIF.  
FRESNO, CALIF.  
GLENDALE, CALIF.  
HOLLYWOOD, CALIF.

HUNTINGDON PARK,  
CALIF.  
LONG BEACH, CALIF.  
LOS ANGELES, CALIF.  
MODESTO, CALIF.  
OAKLAND, CALIF.  
PASADENA, CALIF.  
POMONA, CALIF.  
RIVERSIDE, CALIF.  
SACRAMENTO, CALIF.  
SAN BERNARDINO, CALIF.

SAN DIEGO, CALIF.  
SAN FRANCISCO, CALIF.  
SAN JOSE, CALIF.  
SAN PEDRO, CALIF.  
SANTA ANA, CALIF.  
SANTA BARBARA, CALIF.  
SANTA MONICA, CALIF.  
STOCKTON, CALIF.  
BOISE, IDAHO  
BUTTE, MONT.  
MISSOULA, MONT.

PORTLAND, ORE.  
OGDEN, UTAH  
SALT LAKE CITY, UTAH  
BELLINGHAM, WASH.  
SEATTLE, WASH.  
SPOKANE, WASH.  
TACOMA, WASH.  
VANCOUVER, WASH.  
WALLA WALLA, WASH.  
YAKIMA, WASH.